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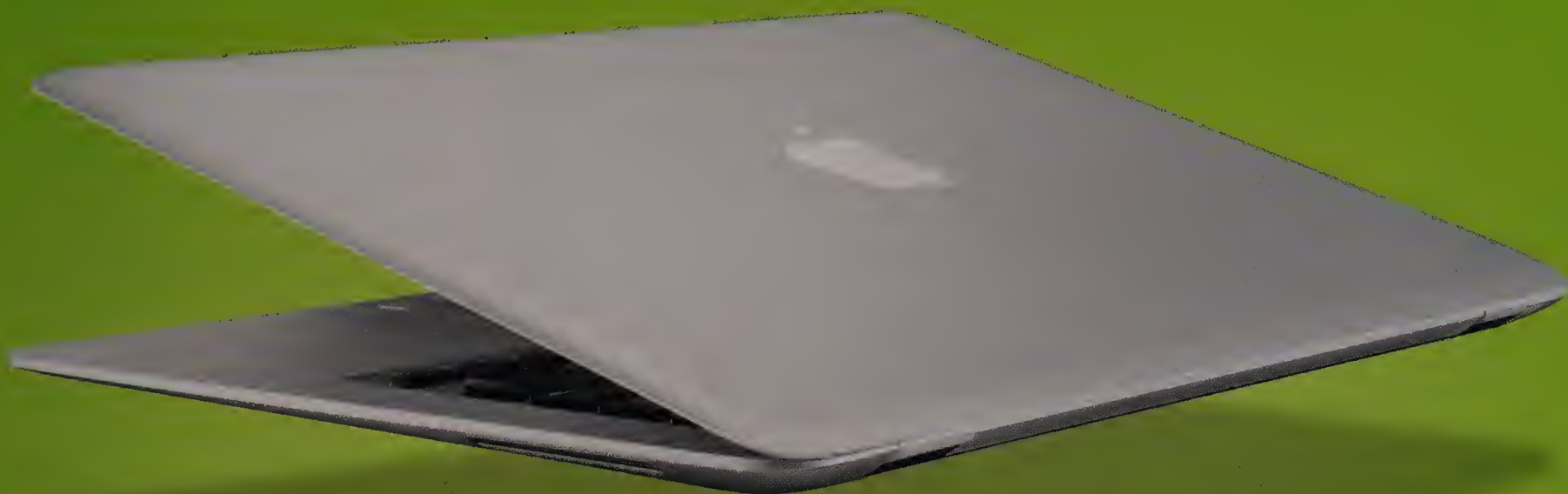
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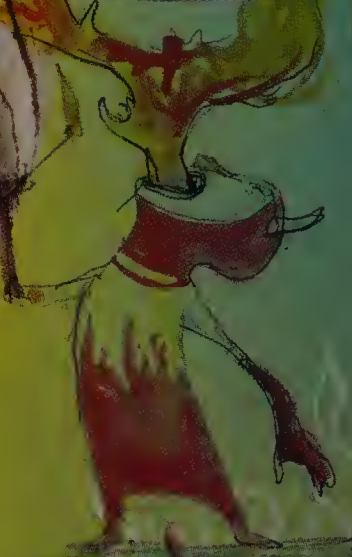
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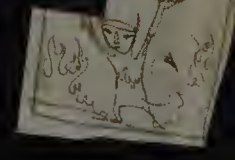
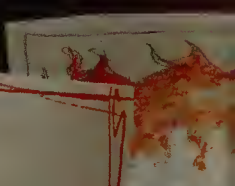
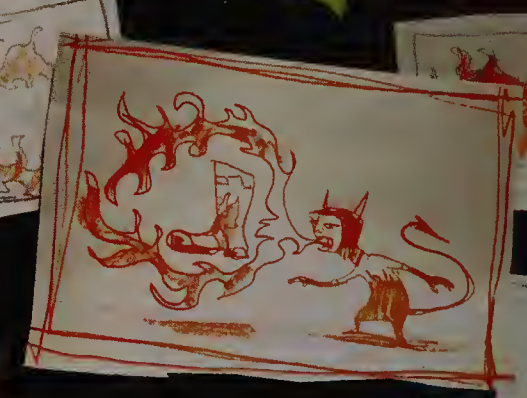
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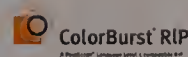


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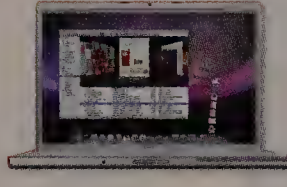
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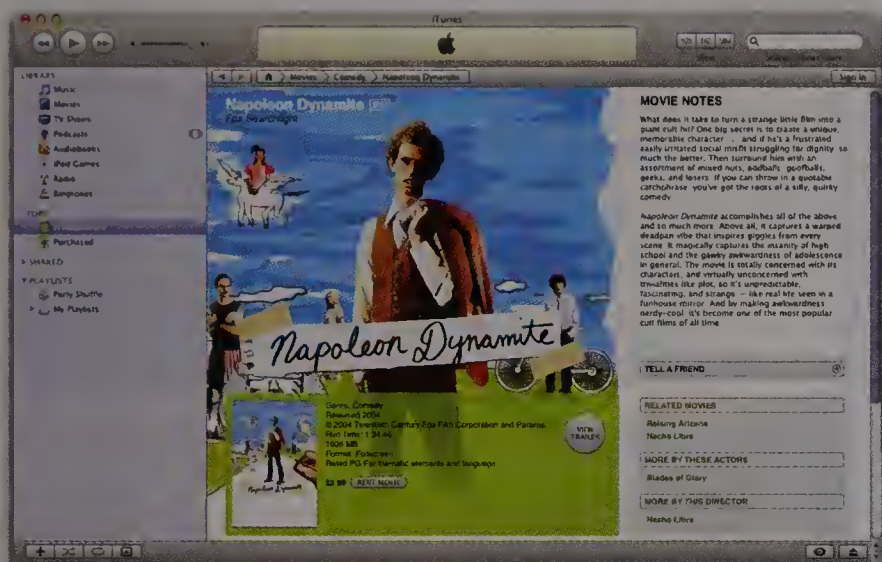
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March 2008



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Photography Courtesy of Apple;
Apple TV Photograph by Peter Belanger

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MACWORLD.COM'S TOP 5

The top 5 stories on Macworld.com are:

- 1 The 23rd Annual Editors' Choice Awards**
Every year, a few new products emerge from the crowd because of their innovation, value, or quality. In 2007, 32 products caught our fancy (macworld.com/3306).
- 2 CompUSA Closing Shop**
Computer retailer CompUSA announced that it would start winding down its operations after being acquired by an investment firm (macworld.com/3307).
- 3 Add More Power to 10.5's Screen Sharing**
Rob Griffiths offers a tip on how to add some new features to OS X 10.5's built-in screen-sharing feature (macworld.com/3308).
- 4 Apple Debuts 'Now What' Mac Ad**
Justin Long and John Hodgman are at it again in the latest "Get a Mac" advertisement from Apple (macworld.com/3309).
- 5 Intel Announcements Hint at Future Mac News**
Intel executives announced a refresh to its mobile processors that could show up in Macs soon (macworld.com/3310).

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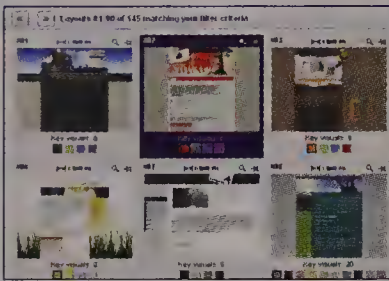
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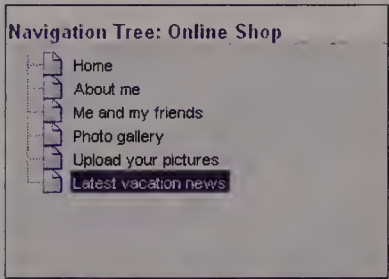
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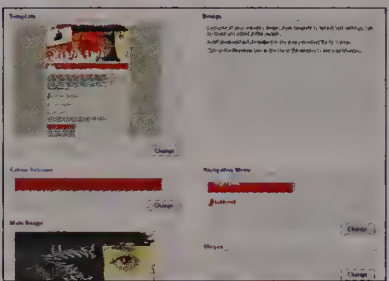
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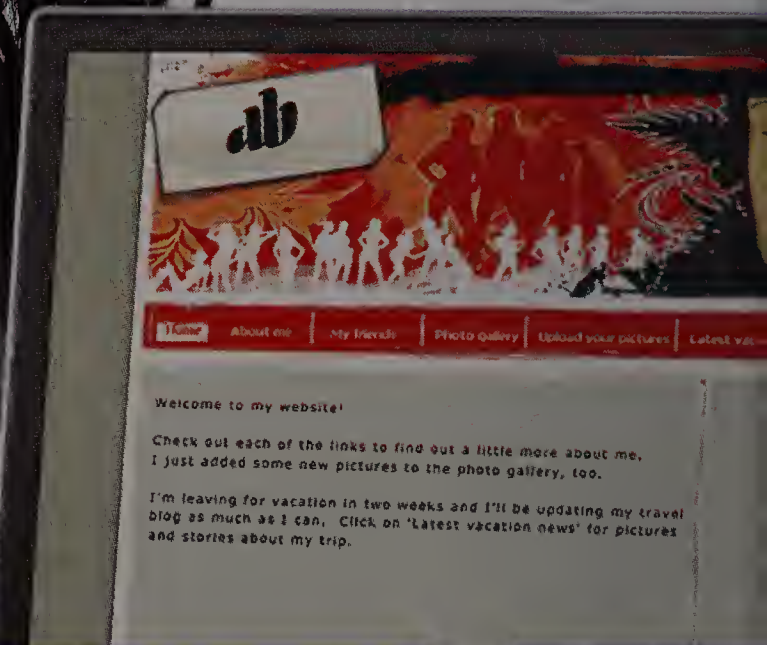
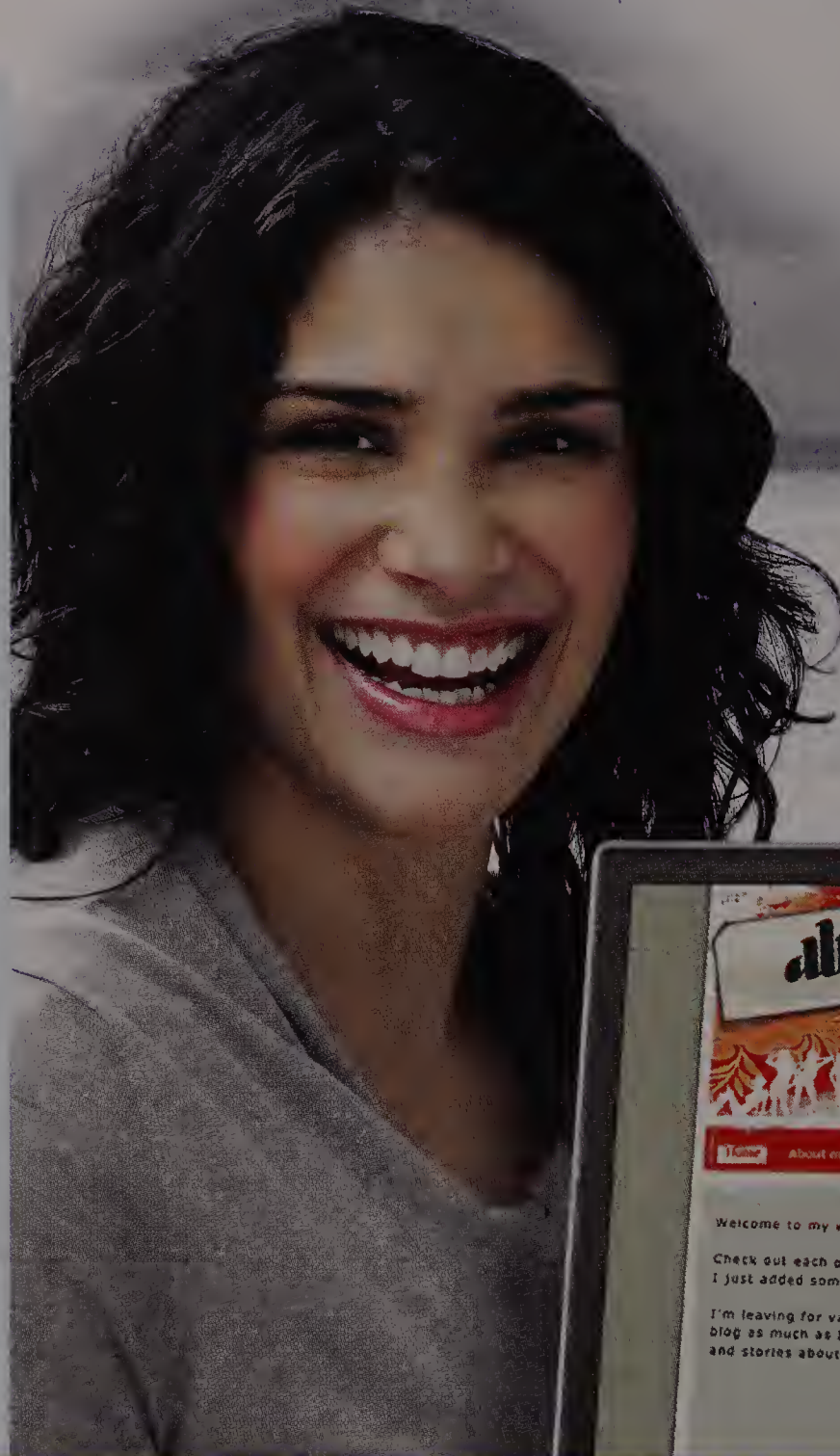
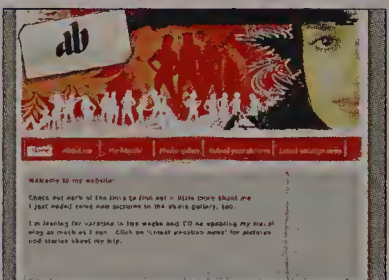
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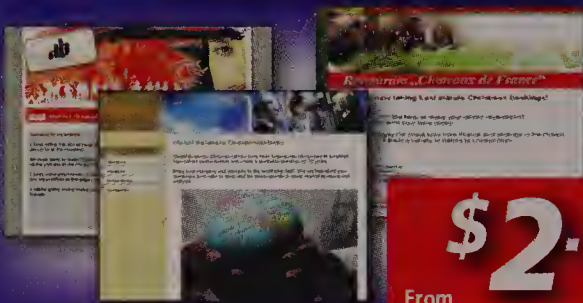
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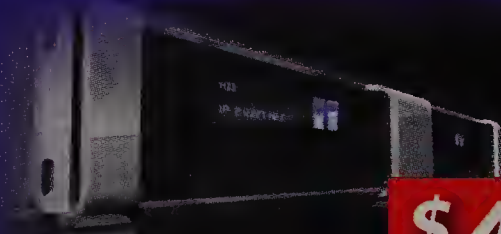
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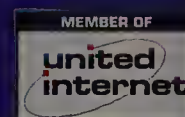
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Apple's Latest Moves

Analyzing the announcements at Macworld Expo

Macworld Expo is without a doubt the high point of the year for anyone who follows Apple. While this year's announcements were not on a par with last year's mind-blowing unveiling of the iPhone, they were still fascinating to behold.

MacBook Air

For Mac users, the talk of this year's Expo was almost certainly the MacBook Air, Apple's new superthin laptop (see "Thin Air," page 58). But that talk wasn't all positive.

The MacBook Air is designed for a minority of a minority: it's a laptop for mobile users who want the smallest, lightest machine possible and are willing to pay a premium price and sacrifice some features to get it.

If you're wondering who would actually want such a thing, the MacBook Air is obviously not for you. But if you're nodding in agreement, if you'd happily give up some features to save weight and bulk, congratulations: the MacBook Air is right up your alley.

I'm dangerously close to fitting the Air's target profile. I opted for an iBook rather than a 15-inch PowerBook, and then I replaced it with the 12-inch PowerBook. When the 13-inch MacBook arrived, I traded in my three-month-old 15-inch MacBook Pro without hesitation. But even I have to agree that the MacBook Air won't appeal to everyone.

If you're the type who sees the glass half-empty, you may be angry that Apple's big Expo announcement is a Mac you'd never consider buying. If you're more the glass-half-full sort, you could interpret the MacBook Air announcement as a sign that Apple is riding so high, it doesn't need to focus solely on the mainstream market. Instead, it's addressing a major—albeit comparatively narrow—niche.

Apple TV and Rentals

The MacBook Air may have been the talk of Macworld Expo, but I suspect



The MacBook Air is for mobile users who will sacrifice features to get the smallest Mac.

that the announcement of iTunes movie rentals and a massive update to the Apple TV (see "Apple TV Gets Updated," *Mac Beat*, page 29) actually had more long-term significance.

These days there are lots of ways to rent movies—through your cable or satellite company, via a set-top box from TiVo or Vudu, from a service like Netflix, or even from your neighborhood rental store (if your neighborhood still has one). The big difference with Apple's entry into the business is that you can watch your rented movies on your iPod. Imagine carrying a bunch of movies with you on your next trip, movies you can keep for up to 30 days (though once you start playing one, you have only 24 hours to finish it).

What makes Apple's announcement about movie rentals more interesting is its transformation of the Apple TV. The device has evolved from a set-top box that played the movies, TV shows, and music stored on your Mac to one that lets you rent movies directly from your couch, bypassing your Mac entirely. (The Apple TV still plays iTunes music

and videos the old-fashioned way, too.) The combination of iTunes, iPods, and the Apple TV with movie rentals gives Apple a pretty formidable line of home entertainment products.

In the first few days after Apple announced the revamp of the Apple TV, I heard several people—none of whom had ever expressed an interest in it before—talk seriously for the first time about buying one. As someone who bought an Apple TV last year, I'm delighted that my investment won't be obsolete: the new Apple TV software is available as a free update for all Apple TV users.

Perhaps the most interesting thing about this announcement was Steve Jobs's admission that the original Apple TV simply wasn't successful. Now, I love my Apple TV—but I'm a tech-savvy person who's comfortable using Hand-Brake (handbrake.fr) and VisualHub (visualhub.net) to convert DVDs and other videos into formats the Apple TV can play. I represent a tiny fraction of the potential Apple TV audience. By adding easy movie rentals, Apple has made the Apple TV more broadly appealing than ever before.

And Much More

Of course, Apple made other announcements at Macworld Expo; you'll find details about those in this issue, too. And the show wasn't just about Apple. It was packed with hundreds of vendors and thousands of enthusiastic Mac users. In this issue, we can only scratch the surface of what we saw and heard. In the months to come, we'll be getting our hands on all the interesting products introduced at Expo—including the MacBook Air and the new Apple TV software. Stay tuned for our hands-on reports, lab tests, and reviews of all of them. ☒

What do you think of the MacBook Air? Does the new Apple TV interest you more than the first version? Drop me a line at jason_snell@macworld.com or come visit the forums at macworld.com.

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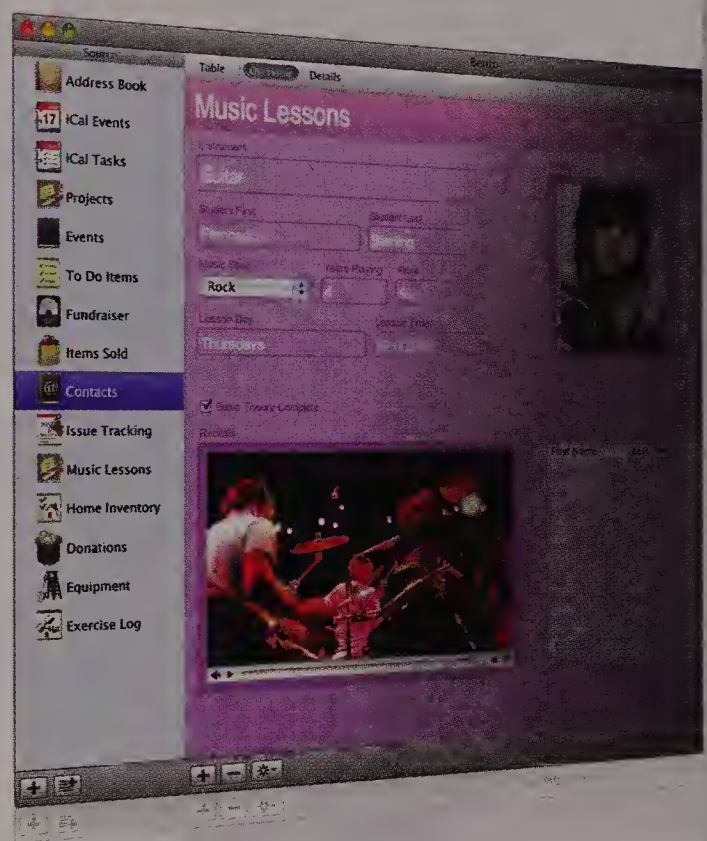
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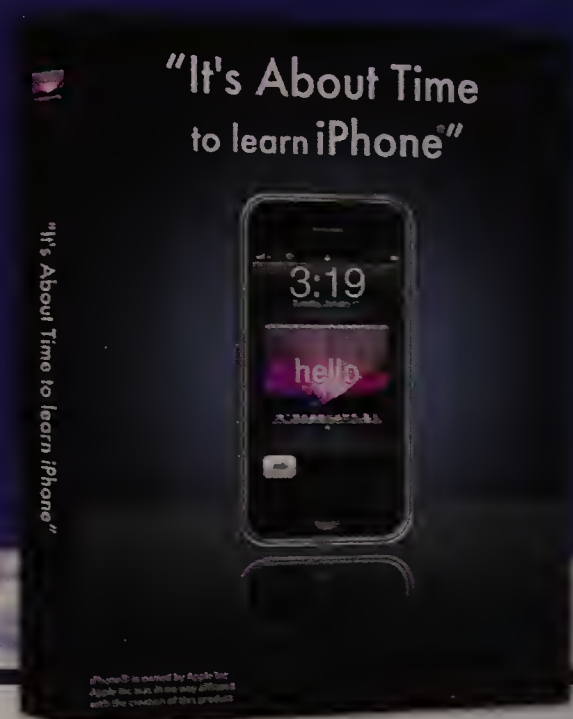
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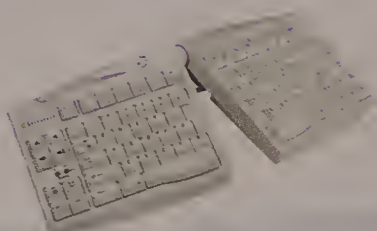
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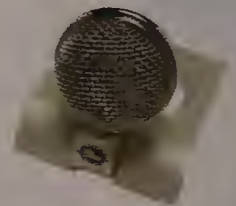
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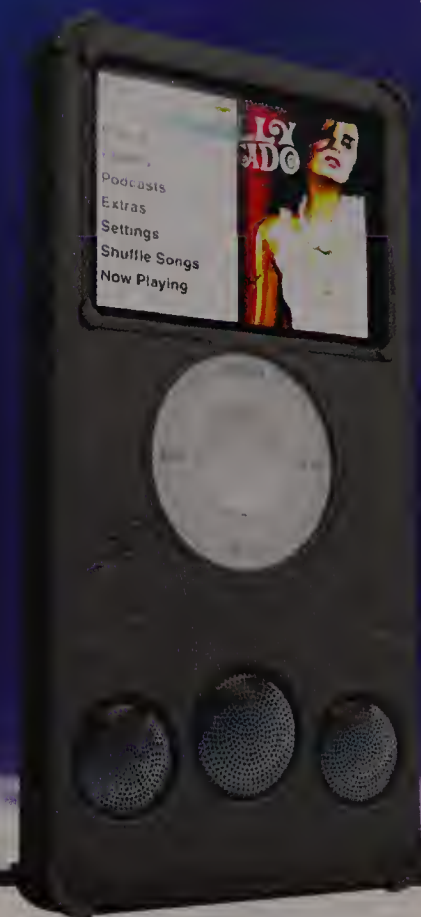


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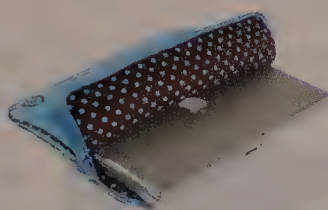


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The iPod Evolves

Reactions to the latest iPods, and first takes on Leopard

You've Got the Touch

I was surprised by the modest rating you gave the iPod touch (♦♦♦½; "iPod Evolution," December 2007). I bought the 16GB version, which I take with me on my frequent trips to Europe, and I think it's fantastic. Videos I've ripped from my DVDs provide hours of entertainment, I use it with noise-canceling headphones on planes, and it has that convenient address book attached. Yes, it could be easier to transfer videos to it, the screen could be a bit brighter, and some extra widgets would be nice. But those are my only complaints. I bought it to provide portable audio and video while traveling, not to use as a telephone, and I am extremely happy.

Richard Johnson

I'm glad I bought my iPod touch before I read your review. I am not an iPhone user, so I did not experience the disappointment that the writer expressed. I upgraded from an iPod nano and I am delighted with the touch. The screen is large enough for these 60-year-old eyes



to see what is on screen. The Cover Flow interface makes it a breeze to navigate. I like being able to pick up my Hotmail and Gmail accounts as well as access the Web. I don't want to carry a computer everywhere I go, and the touch meets my needs very well.

Kathy McLeod

I was reading the December 2007 edition of *Macworld* and noticed an incon-

sistency: In the table on page 54 (*Top Products*), you gave the iPod touch a ♦♦♦ rating. But on page 68, you gave it ♦♦♦½. Which rating is the correct one?

Allen Pierson

The error is in *Top Products*. The correct rating is ♦♦♦½.—Dan Miller

In your gift guide ("Cool Mac Gear," December 2007), you had a picture of the Fatman iTube with an iPod classic plugged into it. But the TL Audio Web site says the amp is compatible with 4GB iPods, the 1GB and 2GB iPod nanos, and the 5GB iPod video. It doesn't mention the iPod classic. Could you clarify?

Garret DeWinter

The iTube works perfectly well with the iPod classic for music playback; evidently the vendor hasn't updated its site to reflect this.—Dan Frakes

OVERHEARD ON THE FORUMS



I get the most work done in the shed at the back of the yard—partly because it's quiet, but mostly because my wireless connection doesn't reach it and so there's no e-mail checking or news-site reading to distract me.

FortranGuy
macworld.com/3270

Philosophically, I agree [with Apple's Human Interface Guidelines] that all commands should be visible to the user. But as software gains more features and grows more complex, it's simply not practical.

jmincey
macworld.com/3271

In the Pocket

Your "Pocket-Friendly Compact Cameras" review (December 2007) included the Panasonic Lumix DMC-FX100. Readers interested in a similar compact camera should consider Panasonic's DMC-LX2. It's slightly more expensive (about \$60 more on the street), but it adds full manual controls and RAW-image support.

Jim Matteson

Jason Snell recently described *Macworld* as "focused on everything Apple." That's fine by me. What is not fine, however, is the six pages you devoted to point-and-shoot cameras in your December issue or the two more you spent describing how to build a photo studio. That's eight pages wasted on non-Apple subjects. Why? Couldn't you fill eight pages with Apple-related material instead of stuff

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that one of the bazillion digital camera magazines would have covered better? I subscribed to *Macworld* to read about Macs. I can cope with a certain amount of iPod and iPhone content, but if you keep filling a significant portion of your editorial space with non-Apple material, I won't be renewing my subscription.

✉ **Richard Drdul**

Adobe versus Apple?

Pamela Pfiffner's article about Adobe's history ("Adobe Turns 25," *Mac Beat*, December 2007) ended by telling us that Mac users "are the beneficiaries of [Adobe's] record of excellence." Huh? The latest PC version of Photoshop Elements is version 6, while we Mac folks are stuck on version 4! The prices of Adobe software still put it out of reach for many Mac users. I appreciate Adobe's contributions to printing, imaging, and publishing. But why would *Macworld* praise a company that seems to cater to the PC market?

✉ **Barbara Passman**

The New Windows

The December *Mac 911* column made me very sad. The answers to the various "vexing Mac problems" reminded me of Mac discussion forums 10 or 15 years ago: Someone would compare the instructions for doing something—anything—in Windows, a confusing list of a dozen or more steps, with the two or three simple, obvious steps that would accomplish the same thing in System 7. Smug looks and pats on the back all around. Fast-forward to 2007. You can back up a keychain, but it won't work unless you first log on to .Mac and jump through a bunch of hoops, and maybe not even then. It takes four steps and a drag and drop to put an address in a BCC field in Mail. You can't easily clear Safari's memory so that autofill works properly, without disabling the whole feature. (Internet Explorer does this with ease on the Vista side, and you can still do it on a Mac if you use Firefox.) Is the Mac becoming Windows? Today's Mac is overflowing with extra-

neous, dysfunctional nonsense (transparent menus!) that, had Microsoft created it, the Mac community would deride as bloatware. Or is Apple just so dazzled by iPhones and iPods that no one in Cupertino really cares about what makes a Mac a Mac anymore?

✉ **Stephen D. Leonard**

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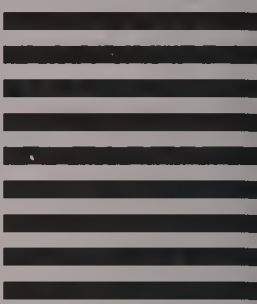
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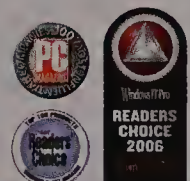
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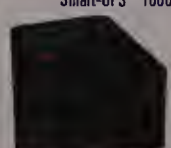
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Leopard: Your Take

Having spent the last two days in Apple's discussion forums reading about the many problems Mac users have had when upgrading to Mac OS X 10.5, I am still very leery of installing it on my PowerBook G4. I have never seen such problems with Apple before.

✉ **S. Mayer**

I hope *Macworld* can stop shilling for Apple long enough to acknowledge the disastrous consequences of Leopard. For all its great features, this OS was insufficiently tested. It has problems with permissions for which Apple was completely unprepared. Many printers will not function under Leopard. If you look at the discussions on Apple's own site, you'll see the huge range of problems and the discontent. Apple's smug indifference to the

problems has not helped. A little "Sorry, our bad" wouldn't have hurt. Instead, Apple goes on spending money on advertising that the company should've spent on releasing a capable and well-tested system.

✉ **Dave Stone**

X

I'll never again upgrade until an operating system has been out for a year. I bought Leopard and upgraded my 20-inch iMac, my MacBook Pro, and my wife's PowerBook G4, and I have had nothing but trouble. Mail got corrupted and I spent five hours on the phone with

Apple to fix it. Then Mail wouldn't open because of a permissions problem. Then Address Book didn't work. Then Time Machine stalled. This is the worst piece of software Apple has ever put out.

✉ **Hank Humphrey**

Praise for a Genius

In the Dallas airport recently, I turned on my iPod. Some sort of test screen showing many types of numbers appeared. My efforts to get to my iTunes playlists were unsuccessful. Fortunately, I am a ProCare member and have the number of Apple's Tucson, Arizona, store in my cell phone. I called; within 45 seconds I was talking to a real person, who told me exactly what to do to clear the test screen and produce my normal screen. My problem was solved in a minute or two.

✉ **Gene Ziegler**

Welcome Back

Things I never expected to happen in my lifetime: the Red Sox winning a World Series, and my owning another Macintosh. In the mid-1990s, I jumped to Windows and never expected to look back. It took a decade for me to come around, but in the last few weeks I have begun to regard my little black MacBook as the spiritual successor to my earlier Macs.

✉ **Tod Pleasant**

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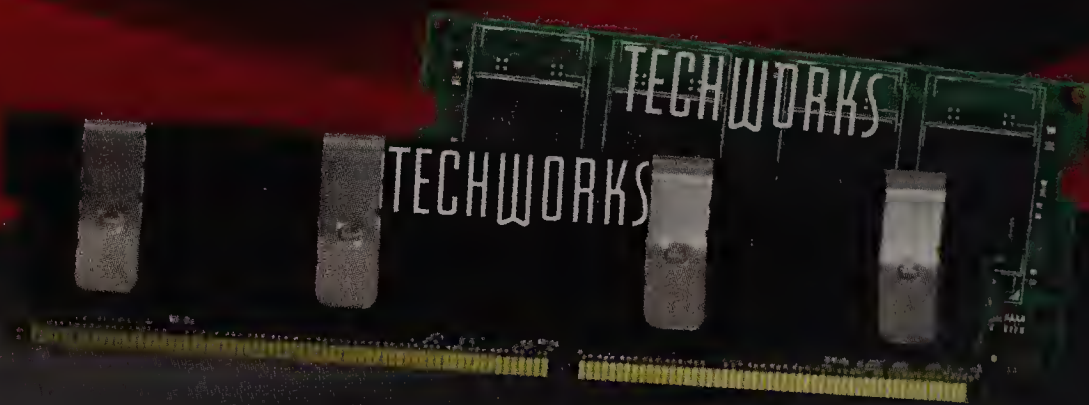
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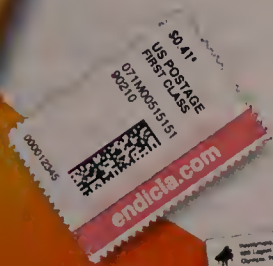
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MACWORLD EXPO

Apple Introduces iTunes Movie Rentals

Despite some minor glitches, iTunes rentals work well **BY PETER COHEN**

In the weeks leading up to Macworld Expo, widespread reports predicted that Apple would abandon its hard-line stance against rentals and begin offering movies for rent on the iTunes Store. Those reports proved to be dead-on.

"We don't think people want to rent their music," Jobs said during his keynote presentation, "but most people watch movies once." And with that, iTunes Movie Rentals was born. By adding a movie-rental feature to iTunes, Apple enters new territory for its online digital media store. Now, when you go to the iTunes Store, you

can rent movies rather than buying them, just as if you were going to the corner video store. You can keep the downloaded rental for up to 30 days, though once you start watching it, you have just 24 hours to finish it.

Compared to the 4 billion songs and 125 million TV shows sold on the iTunes Store since its inception, only 7 million movies have been downloaded since they went on sale for U.S. iTunes users in September 2006. iTunes movies can cost anywhere from \$9.99 to \$14.99 for new releases—sometimes only a few dollars less than a DVD, and they come

without the bonus material and at lower quality. Little wonder, then, that movie sales haven't caught on as Apple hoped they would. A different approach may be what Apple needs to bolster the movie business at iTunes.

Now, the same movie that once cost \$14.99 to download—*Pirates of the Caribbean: At World's End*, for example—is also available as a \$3.99 rental. But is the experience worth the rental price?

What's Available

Right now, iTunes' rental library is considerably smaller than the catalog of movies available for purchase. But

Apple promises to have 1,000 movies available for rent by the end of February. And Jobs said that Apple has managed to get all the major movie studios on board.

As far as timing goes, new movies will become available 30 days after their release on DVD—a standard restriction for online movie services. “The movie industry has put its foot down and said they make billions on DVD sales,” says James McQuivey, a media and technology analyst at market-research firm Forrester McQuivey. “Until the DVD business starts to erode by itself naturally, the movie studios aren’t going to hand someone the tools to undermine that business.”

Paying for and downloading a movie works just as before, though there’s a new Rentals area in the Movies section of the iTunes Store, where you’ll see the option to rent a movie. At press time, the selection ran the gamut from recently released action films like 300 to classics like *Breakfast at Tiffany’s*. (It’s also worth noting that many movies—both new and library titles—are rental-only.)

Rentals cost \$3.99 for new releases and \$2.99 for older titles. Apple also announced a plan to offer (by the time you read this) high definition movies—at 720p resolution with a Dolby Digital 5.1 soundtrack—for \$1 more than the corresponding standard definition versions, only for download to the revamped Apple TV (for more about the Apple TV, see “Apple TV Gets Updated”). Many rentals are currently full-screen as opposed to wide-screen.

If you rent a movie on your Mac (or on a PC), you can transfer the file to an iPod classic, nano, or touch; an iPhone; or an Apple TV. However, movies downloaded through the Apple TV can play only on that device. As mentioned, you have 30 days to start watching the rental, but once you start, you have only a 24-hour window to finish watching before the rental expires.

How It Works

To put the rental service through its paces, I rented the Bruce Willis action movie *Live Free or Die Hard* for \$3.99. It took about 20 minutes to grab the 1.5GB file during off-hours from my Macworld Expo hotel room. Your

Apple TV Gets Updated

During his keynote, Jobs showed a remarkable amount of humility about the Apple TV’s first iteration, though he did suggest that Apple was not alone in having failed to solve the issue of providing digital downloads to the living room. But that should change with a free software update—and a reduced price—for the company’s set-top box. Here’s what has changed.

Price Apple has shaved \$70 from the price tags of both the 40GB Apple TV, which went from \$299 to \$229, and the 160GB Apple TV, which dropped from \$399 to \$329.

Content It used to be that if you wanted to play music in your iTunes library, you had to either copy or stream it from a computer on the network; likewise with TV shows and movies purchased from the iTunes Store. With the updated Apple TV and enhanced iTunes Store, Apple has cut the cord. Now you can sit on your couch and, Apple remote control in hand, rent a movie, purchase a TV episode or a piece of music, or download a podcast from the iTunes Store directly to your Apple TV. That content can then sync to your Mac.

5.1 Audio The original Apple TV supposedly didn’t support 5.1 surround sound, but that wasn’t quite true. If you encoded a video’s audio track in exactly the right way, you could get the Apple TV to output 5.1 audio. However, Apple explained that the Apple TV couldn’t handle Dolby Digital 5.1 surround sound, an audio standard routinely used in commercial movies. Now it can, so videos with 5.1 soundtracks—such as Apple’s high definition (HD) rentals—will play in all their surround-sound glory.

HD Speaking of HD, there was also some debate over the original Apple TV’s ability to play HD content. If you could find such content—from Apple’s QuickTime HD Gallery, for example—and get it onto the Apple TV, it would play. The updated Apple TV has the same video specifications as before. So what’s changed? The availability of content. The iTunes Store already has HD video podcasts, and will soon be brimming with HD movie rentals. Although the Apple TV is limited to displaying 720p HD video at 24 frames per second, that poses no barrier for movies, which play only at that frame rate.

Streaming Internet Media Shortly after the Apple TV’s release, Apple updated the device so it could stream YouTube content. The updated Apple TV can now also stream pictures from a .Mac or Flickr account.

Streaming Local Media The Apple TV continues to offer the ability to stream media from your computer or play it from the device’s hard drive, but the updated interface discards the distinction between local and remote storage. Your media is your media—My Movies, for example—and the Apple TV doesn’t force you to choose a source. You select what you need, and the Apple TV plays it, whether it’s streaming content that’s stored on a computer or media that’s stored on the Apple TV’s drive. Better yet, it can automatically determine which media will work better when stored on the Apple TV’s hard drive, and then sync your media accordingly.

—CHRISTOPHER BREEN



download time will depend on your Internet connection.

The same movie on a 1.5-Mbps DSL line could take three or four hours to download. But you can begin watching a film once your computer or Apple TV determines that enough of it has been downloaded.

That's not to say the rental system is flawless. I first tried to grab the Will Ferrell comedy *Blades of Glory*—but its status had recently changed, and I couldn't download it.

Additionally, the timing mechanism seems a little wonky. When my download didn't finish by the time I went to bed, I started it up again the next morning, only to discover—via a message telling me I had 29 days left to watch the movie—that the 30-day clock had already started running. Perhaps it starts to run because, as Apple contends, you can begin watching the rentals within 30 seconds of starting the download on “a modern Internet connection.”

When you make up your mind about what you want to grab, the iTunes Store prompts you to confirm your purchase. You have the option at this point to turn off that dialog box in the future, if you wish. Once you click on Rent, the movie starts to transfer to your computer.

As the file transfers, you'll notice a new Rented Movies icon in the Library section of the Source list. Clicking on this icon reveals any movies that you've rented, complete with information about the studio, the movie's run time, and a short synopsis.

You have the option to watch the movie as soon as enough of the file has downloaded to build up a sufficient buffer. When you double-click on the movie to begin watching, you're advised that you'll have 24 hours to finish it.

From there, the experience of watching the movie is the same as if you had bought it. For instance, the film includes chapter markers, you can watch in full-screen mode, and so on.

As described earlier, you can also transfer your rental to another device—specifically, an iPod, an iPhone, or an Apple TV. *Transfer* is the operative word here—you are, in fact, moving a file from one device to another, not copying it. (You can't transfer the movie from an Apple TV to another device, however.) You'll need an Internet connection to move files off your computer; this allows iTunes to manage the required FairPlay digital rights management (DRM) transaction.

Given how cumbersome managing files encrypted with DRM can be,

iTunes Digital Copy

During his keynote, Steve Jobs invited Jim Gianopulos, chairman and CEO of 20th Century Fox, to speak about the movie-rental partnership between the two companies. Gianopulos also told the audience that Fox would begin including an iTunes- and iPod-compatible file, known as the iTunes Digital Copy, with some of its DVDs and Blu-ray Discs.

Using a Digital Copy is a less time-consuming—and less legally dicey—procedure than ripping your own DVDs with HandBrake in order to view those movies on an iPod, iPhone, or Apple TV. As of press time, Fox is the only company that has released a movie with an iTunes Digital Copy, and only one specific DVD at that: *Family Guy Presents: Blue Harvest*. Here's how it works.

The *Family Guy* Digital Copy is on a second disc. Once you insert it in your Mac, you'll use the Enter Code field in iTunes to input the unique serial number found on an insert within the packaging. iTunes will connect to the iTunes Store, associate the digital file with your account info, and begin to transfer the file into iTunes.

Once the transfer is complete, the movie appears in the Movies section of your iTunes library, just like any movie purchased from the iTunes Store. You can play it in iTunes or Front Row, and transfer it to an iPod, an iPhone, an Apple TV, or another Mac. Unlocking the movie associates your iTunes Store account with the file using Apple's FairPlay DRM technology. Thus, the five-computer limit on iTunes Store purchases also applies to Digital Copy movies.—DAN FRANKS

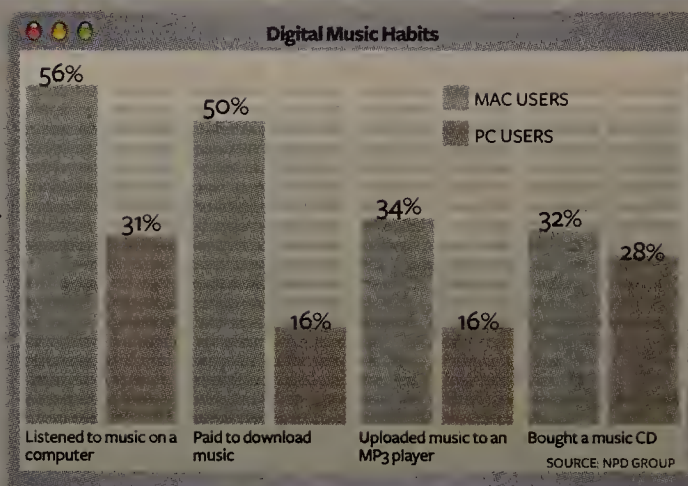


TECH TRENDS

Music Matters

Mac users are not only more likely than PC users to listen to digital music, they are more likely to pay for it as well. An NPD Group study of U.S. Internet users age 13 and older found that 50 percent of Mac users had bought music online during the third quarter of 2007, while only 16 percent of PC users had done so.

—MARYANN JONES THOMPSON



HARDWARE

2-Port Dual-Link DVI KMP & Multi-media Switch, from Iogear (www.iogear.com): Device shares a dual-link DVI display, USB keyboard and mouse, and surround-sound system between two computers (\$400).

DroboShare, from Data Robotics (www.datarobotics.com): Companion product to Drobo storage device lets users share and store files over a local area network (\$199).

eGo USB 2.0/FireWire, from Iomega (www.iomega.com): Flask-shaped USB 2.0 and FireWire hard drive includes Drop Guard feature to protect against falls, and comes in different colors (160GB, \$189; 250GB, \$229).

Fujitsu ScanSnap S300M, from Fujitsu (www.fujitsu.com): Mobile scanner measures 11.2 by 3.7 by 3.0 inches and can scan paper documents, receipts, bills, invoices, and business cards (\$295).



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Apple has done a good job of making the process as unobtrusive as possible. Still, some users are likely to wonder why they have to *move* movies rather than copy them as they can do with music—and they're likely to find explanations involving movie studios' concerns about piracy unsatisfying.

When the file transfer is complete, the copy of your movie disappears from the iTunes Rented Movies list on your computer and reappears on the device to which you have copied it. (Once the 24-hour window closes, your rental disappears from the Rented Movies list in any event.)

Final Thoughts

iTunes movie rentals are unlikely to appeal to everyone. Some people still prefer to own their media, and others will have no qualms about taking what they can get via BitTorrent. And perhaps the biggest concern people will have is the 24-hour window, since some people enjoy watching a movie on an iPod or iPhone during their free time over the course of several days (not to mention busy parents who don't often have two hours at a stretch to enjoy uninterrupted entertainment). It would be great if Apple let you, say, pay an additional \$1 to extend your rental period by 24 hours. But the 30-day, 24-hour model is the one that movie studios have adopted,

and video-on-demand services such as Vudu impose the same restrictions.

So can Apple succeed at the rental game? As with its music efforts, Apple is getting into a market behind other services. And unlike with music, where Apple could challenge the subscription model with its per-download pricing, the rental system Apple has unveiled is not all that different from what rival services already have in place. But although Apple is late to the game, the large number of iTunes users may put the company at a great advantage.

"The iTunes movie rental experience is in the best environment that the business could operate in," says Forrester's McQuivey.

"Apple offers a rental service to literally millions of

people who already have an Apple device, not to mention people who just use the iTunes Store."

iTunes rentals may fit the bill for those users who are more interested in an easy, straightforward way to download premium movies that they can watch on multiple devices without a return trip to the video store. Despite a few opening-day glitches, which Apple is likely to smooth out, the new service is surprisingly robust and easy to use. ❌

Peter Cohen is a *Macworld* senior editor. Associate Editor **Brian Chen** also contributed to this story.

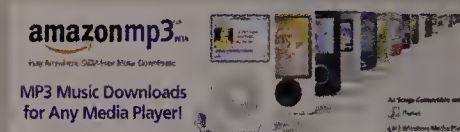


NEWS IN BRIEF

NETFLIX

Netflix Offers Unlimited Streaming—Still Windows-Only

Movie rental company Netflix has announced unlimited streaming of movies and TV episodes to the PCs of all subscribers on an unlimited rental plan (previously it handled streaming as a metered service). Netflix currently offers 6,000 movies and TV episodes for streaming to subscribers, but this service is available only to Windows users. However, the company said that it plans to add Mac compatibility in 2008, most likely through Microsoft's Silverlight video plug-in.



DRM in Its Death Throes?

In January, Amazon announced that it was adding music from Sony BMG to its Amazon MP3 digital music download service. Amazon MP3 sells all its songs in the MP3 format, which eschews any sort of digital rights management (DRM) technology. The files, which are encoded at 256 Kbps, can be played back on just about any device that plays MP3 files, including Macs, iPods, and iPhones. And with Sony BMG, Amazon now has all four of the major record labels on board for selling DRM-free music. With generally lower prices than iTunes—most individual tracks are priced from 89 to 99 cents apiece, with complete albums often priced from \$5.99 to \$9.99—will Amazon take a bite out of iTunes' numbers? And how long will it be before Apple begins to sell everything DRM-free?

WIDGET OF THE MONTH

Amazon Album Art 2.12

iTunes can find album art for tracks in your library, but only if those tracks are labeled exactly as in the iTunes Store. For other tracks, the Widget Foundry's Amazon Album Art 2.12 (payment requested) can help. Type the artist and track names—or click on the iTunes button to enter the currently playing track—and the widget searches Amazon for covers (www.widget-foundry.com). —DAN FRANKS



HARDWARE

Photosmart Pro B8850, from Hewlett-Packard (www.hp.com): B-size printer uses eight pigment-based inks; bottom-feed paper tray can handle approximately 50 sheets of standard photo paper (\$549).

Podcast Studio, from Belkin (www.belkin.com): Two-channel iPod-based audio mixer offers two XLR inputs, two 1/4-inch inputs, two 1/8-inch inputs, left and right built-in microphones, and a built-in speaker and headphone jack for live monitoring (\$100).

SeriTek/5PM SATA enclosure, from FirmTek (www.firmtek.com): Hard-drive enclosure can hold up to five hot-swappable Serial ATA drives (\$540; also available with 500GB, 750GB, and 1TB drives).

Tango X2, from XtremeMac (www.xtrememac.com): Updated iPod speaker system adds an AM/FM tuner supporting six user presets and a blue LED display tucked behind its front grille (\$150).

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MACWORLD EXPO

Best of Show

Our favorite products from Macworld Expo 2008

Every January, *Macworld's* editors scour the Expo show floor for the most intriguing new products we can find. This year, these 11 products stood out from the rest of a very large, very full field. (For video of our "Best of Show" ceremonies, go to macworld.com/3332.)—DAN MILLER

BusySync, from BusyMac: BusySync lets you share iCal calendars on a local network or over the Internet without a dedicated server. You can select the calendars you want to share, specify read and write privileges, and assign passwords. The new version also lets you sync iCal with Google Calendar (\$20 to \$25 per computer; www.busymac.com).



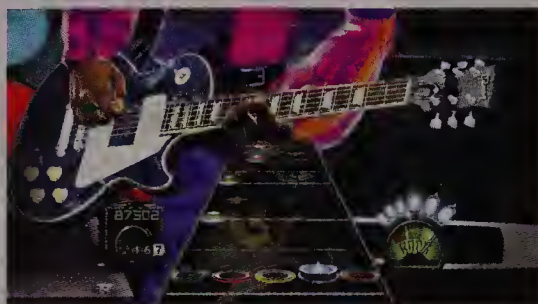
Dictate, from MacSpeech: Dictate is built from the ground up for Intel Macs, yet uses the same acclaimed recognition engine as Dragon NaturallySpeaking. The software will transcribe your words in word processors, spreadsheets, e-mail, chats—pretty much any program you use (\$99; www.macspeech.com).



Eye-Fi Card, from Eye-Fi: At first you may think it's just another 2GB SD card. But the Eye-Fi Card also uploads your digital photos from your camera to your Mac wirelessly—no plugging or unplugging required, and no card reader necessary. Install the Eye-Fi Manager software on your Mac, and the program can route your pictures automatically to iPhoto or to your favorite photo-sharing site (\$100; www.eye-fi).

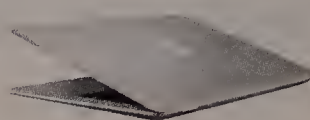
Flow, from GridIron Software: Flow is a tool for organizing and tracking the relationships between your digital

assets. It knows which files are used in which documents, which fonts are used in each file, and what will happen to your projects if you delete a particular file from your system. And its Visual Versioning feature lets you restore older versions of a file (pricing not announced; gridironsoftware.com).



Guitar Hero III: Legends of Rock, from Aspyr Media: In the Guitar Hero franchise, you live out your rock-star fantasies as you "play" guitar or bass along with your favorite rock songs. The better you play, the more money you earn to buy new gear, new stage outfits, and new songs. Guitar Hero III doesn't radically alter the basic premise, but the music this time around ranges from classic rock like Heart to the Sex Pistols, Smashing Pumpkins, and beyond (\$80; www.aspyr.com).

MacBook Air, from Apple: The MacBook Air is almost frighteningly skinny. And yet it really is a full-fledged Mac, even if it makes you give up a few things. See "Thin Air" on page 58 for more information (\$1,799; www.apple.com).



NEC MultiSync LCD3090WQXi, from NEC: What sets this 30-inch monitor

apart is a faster pixel response time, higher contrast ratio, and wider viewing angle than those of the 30-inch Apple Cinema HD Display. It also has built-in tools that automatically adjust backlighting and individual pixels to ensure color uniformity across the screen and over time (\$2,200; necdisplay.com).

OmniFocus, from The Omni Group: OmniFocus makes it easy to capture new to-do items anytime one occurs to you. It also integrates nicely with OS X: it'll sync with iCal, you can add tasks via e-mail, and you can search your to-do list with Spotlight (\$80; www.omnigroup.com).



Parallels Server, from SWsoft: Install Parallels Server on an Intel-based machine running OS X (client or server), and you can then run Windows, Linux, and Novell server operating systems on the same machine at the same time. It'll even let you run OS X Server as a virtual machine on OS X Client. You can now run almost any server OS from a Mac—something you can't do today on a Windows machine (pricing not announced; www.parallels.com).

Photoshop Elements 6.0, from Adobe: Adobe's consumer-level photo editor is quicker to launch, sports a dramatically revised interface, and is finally a Universal program. For more information, see "First Look: Photoshop Elements 6.0," on page 36 (\$90; www.adobe.com).

VectorDesigner, from TweakSoft: Based on OS X's Core Image technology, VectorDesigner has an integrated Flickr browser that lets you search for images by color or tags, fairly complete vector controls (including tools for turning rasters into vectors), and some interesting effects (\$70; www.tweakersoft.com).

SOFTWARE

Doozla, from Plasq (plasq.com): Drawing program for kids includes Coloring, Drawing, Webcam Drawing, and Draw On Background modes; creates resizable vector drawings; and works with tablets and iSight cameras (\$25).

EyeTV 3, from Elgato Systems (www.elgato.com): This television software gets an iTunes-like interface, including a customizable sidebar and Cover Flow mode, plus sharing and Smart Guides features (\$80; upgrade, \$40).

Interarchy 9, from Nolo (www.nolo.com): File-transfer program adds support for a new SSH protocol that's faster than SFTP, among other enhancements (\$39; upgrade, \$29).

LightWork 7.8, from LightWork Design (www.lightworkdesign.com): Updated rendering program offers improved accuracy and performance, plus easier-to-use lighting, global illumination, tone mapping, and gamma correction tools (contact LightWork Design for pricing).



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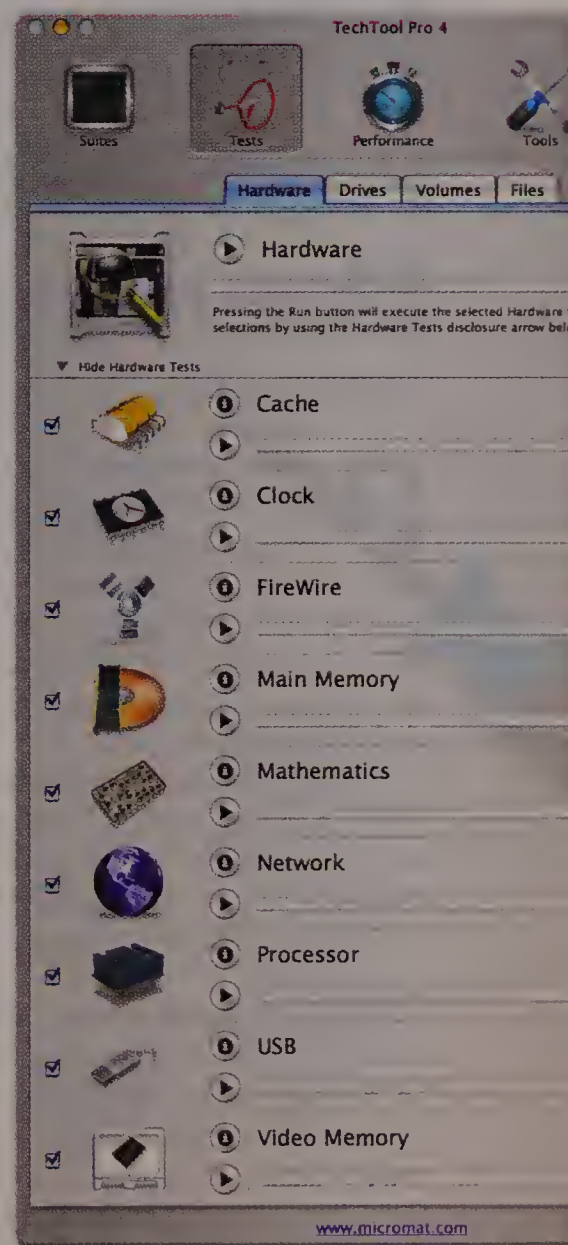
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GRAPHICS

First Look: Photoshop Elements 6.0

Image-editor update delivers welcome additions

Patience can indeed have its rewards, and when it comes to the newly unveiled Adobe Photoshop Elements 6.0, the payoff promises to be big. In fact, it's been so long since Adobe has come out with a Mac release that Elements skipped version 5 entirely, going directly from 4 to 6.

The \$90 Photoshop Elements 6 (\$70, if you're upgrading) incorporates more functionality from big brother Photoshop CS3, and adds some features that CS3 users will envy.

A Quick Start and a New Look

Version 6 introduces a new interface, but the first thing you'll likely notice is the program's zippier launch. In informal testing on my 2GHz MacBook Pro Core Duo, it opened three times faster than the last version. That's because

this new version runs natively on both PowerPC- and Intel-based Macs.

Once it's open, you'll notice its dark-gray interface, similar to that of Adobe Photoshop Lightroom. Though it's easier on the eyes and it certainly makes photos "pop" on screen, it may take a little getting used to. I found some dialog-box settings slightly harder to read.

Elements is aimed at amateur photographers, and it's clear that Adobe put a lot of thought into who uses the program. Hence, Elements 6's new interface features three workspaces—Edit, Create, and Share—resulting in a user experience that's suited to the intrepid novice and seasoned guru alike.

Editing Tools

When it comes to editing your images, Elements offers new tools and features

throughout. The update adds more-powerful sharpening (Smart Sharpen and Unsharp Mask), along with the ability to adjust color curves and correct camera distortion (great for quick edge vignetting).

Perhaps the biggest advance in simplified editing is the addition of two new Photomerge options. The most useful of all is the new Photomerge Group Shot, wherein Elements will create one perfect photo from up to ten images. It

starts by auto-aligning the photos so the subjects' faces will blend perfectly. Next, you choose one photo as the starting point, and then use a tool to grab the eyes from another photo, perhaps a smile from yet another, and so on. Elements uses your scribbles as a guideline and figures out how much to clone in order to blend the photos seamlessly.

Create and Share Workspaces

Once you've edited your photos, you enter the Create workspace to choose what you'll do with them. In Projects mode, you can work with multiple pages in a single document, letting you easily create a photo book (which you can order from within Elements), a collage, a Web gallery, or a PDF slide show. You can begin any project with a Project Bin full of photos (this was called Photo Bin in previous versions), or create a custom layout and pop the photos in later.

Finally, the new Share workspace helps you export a Web gallery, e-mail a photo as an attachment, order prints, and burn photos to a CD or DVD.—LESA SNIDER KING

SOFTWARE

NetNewsWire 3.1, from NewsGator (www.newsgator.com): RSS reader, which previously sold for \$30 but now costs nothing, adds tabbed browsing (free).

PDF2Office Personal 4, from Recosoft (www.recosoft.com): PDF-to-Word converter adds complete integration with Microsoft Office 2008 as well as full support for Leopard (\$59; upgrade, \$29).

Phlink 4, from Ovolab (www.ovolab.com): Updated telephony software gets revamped interface and adds call-screening and talking caller-ID features (\$150; upgrade, \$40).

Universal Type Server, from Extensis (www.extensis.com): New client-server font-management program supersedes the company's existing Suitcase Server X1 and Font Reserve Server products (contact Extensis for pricing).

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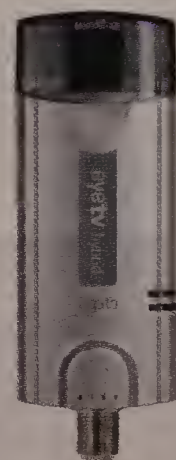
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Macworld
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Hot Stuff

What we're raving about this month

Eudora Mailbox Cleaner 4.8

I've been using Eudora for my e-mail ever since I gave up on Pine in the early 1990s. The thought of moving to another e-mail client was too daunting until two pieces of software gave me the courage to enter the modern age—Leopard's version of Mail and Andreas Amann's Eudora Mailbox Cleaner 4.8 (donations accepted). With the latter, I was able to import tens of thousands of Eudora e-mail messages from my past, complete with inbox attachments, into Mail (this works as long as the files are in Eudora's Attachments folder—unfortunately, sent messages don't retain their attachments). It also moved my vast collection of Eudora nicknames into Address Book for use with Mail (Mailbox Cleaner also imports filters as rules, but now that I'm using Mail's smart folders, I don't even need them). The result is that, although it required a bit of elbow grease, I'm now a card-carrying Mail user. And I couldn't—or at least wouldn't—have done it without Eudora Mailbox Cleaner (macworld.com/3304).—**JONATHAN SEFF**



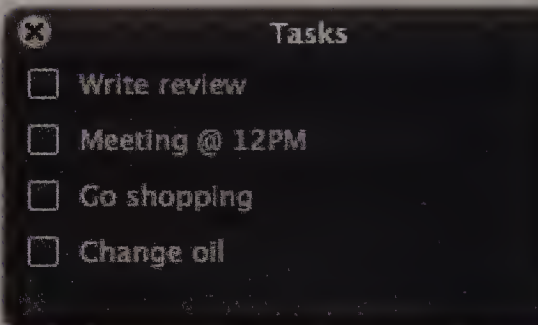
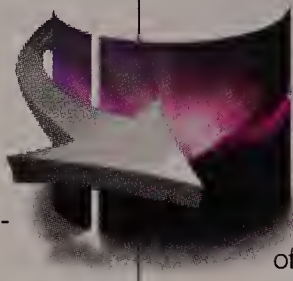
Waterproof Data Storage Chest

Although a good backup system includes keeping an off-site copy of your data, protecting your on-site backups is important as well. SentrySafe's \$170 QAO121 Waterproof Data Storage Chest is a compact media safe that holds up to 60 CDs and DVDs, along with a portable 2.5-inch hard drive, a digital camera, or other small media—protecting them from 24 hours of underwater submersion or 30 minutes of 1,550-degree heat. But what's special about the QAO121 is that the safe has its own USB connection: plug a bus-powered USB storage device into the USB port on the *inside* of the safe, and you can then back up to that device without having to open the safe or remember to put the drive back in when you're done (www.sentrysafe.com).—**DAN FRAKES**



Warp

Let's be honest—not everybody loves Leopard's new Spaces feature, which gives you multiple virtual desktops; users who rely heavily on the mouse to get around may find it downright inconvenient. From Kent Sutherland, who brought us the very useful Chax plug-in for iChat, comes the free Warp (donations accepted), a preference pane that makes Spaces more accessible. Warp lets you jump into different spaces using your mouse or trackpad—just move the cursor to any edge of the screen to shift to the adjacent space (www.ksuther.com).—**AAYUSH ARYA**



Anxiety

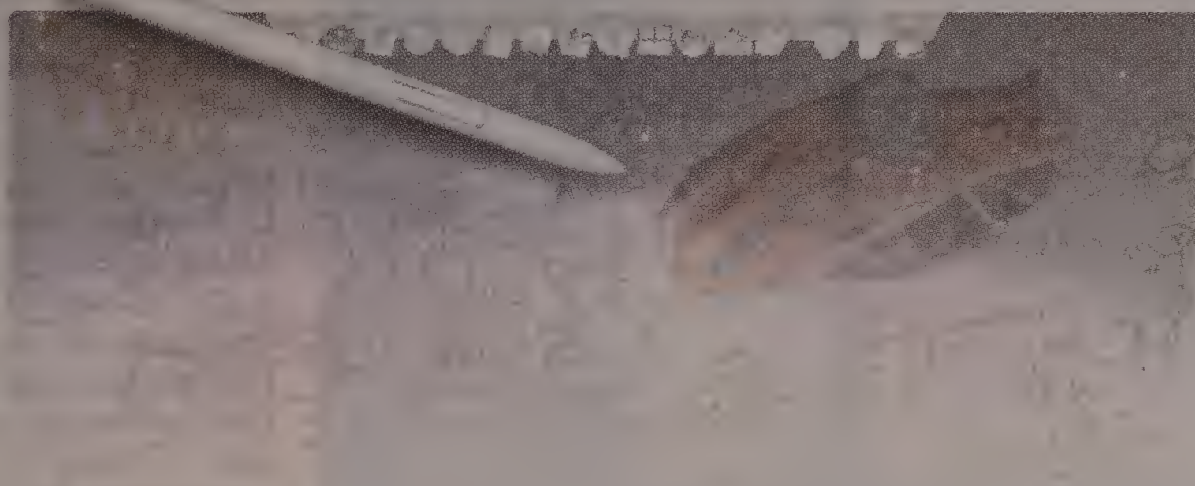
With my upgrade to Leopard, I've vowed to start making better use of iCal, but I haven't quite gotten around to managing my to-do lists. Both iCal and Mail now have the ability to handle to-dos, but neither of them integrates very well into my workflow. A new task manager from Model Concept called Anxiety might be just what Dr. Organization ordered. I'll admit it: I'm a neurotic bundle on most days, so why not embrace my anxiety? The free Anxiety (donations accepted) is a lightweight to-do program that lives in your Dock or menu bar; trigger it and it'll show you a list of your to-do items. You can also create new ones with just a few keystrokes. It even integrates with iCal and Mail if you want to go that route. All in all, it's a pretty nifty program for people who like to manage their tasks without a lot of overhead (www.anxietyapp.com).—**DAN MOREN**

MicPort Pro

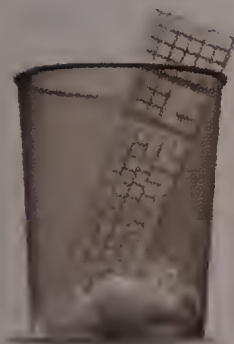
Are you ready to take your podcast on the road but don't want to lug along the bulky USB interface required to move your voice from mike to Mac? CEntrance provides a portable solution in the form of its \$150 XLR-to-USB microphone preamp, the MicPort Pro. About the size of a roll of quarters, the MicPort supports 24-bit, 96kHz audio and has a jack for your microphone on one end and a USB port on the other. Unlike other small USB preamps, the MicPort Pro provides phantom power. It also includes a headphone port and two knobs—one for controlling mike gain and the other for adjusting the volume of headphones plugged into it (www.centrance.com).

—**CHRISTOPHER BREEN**





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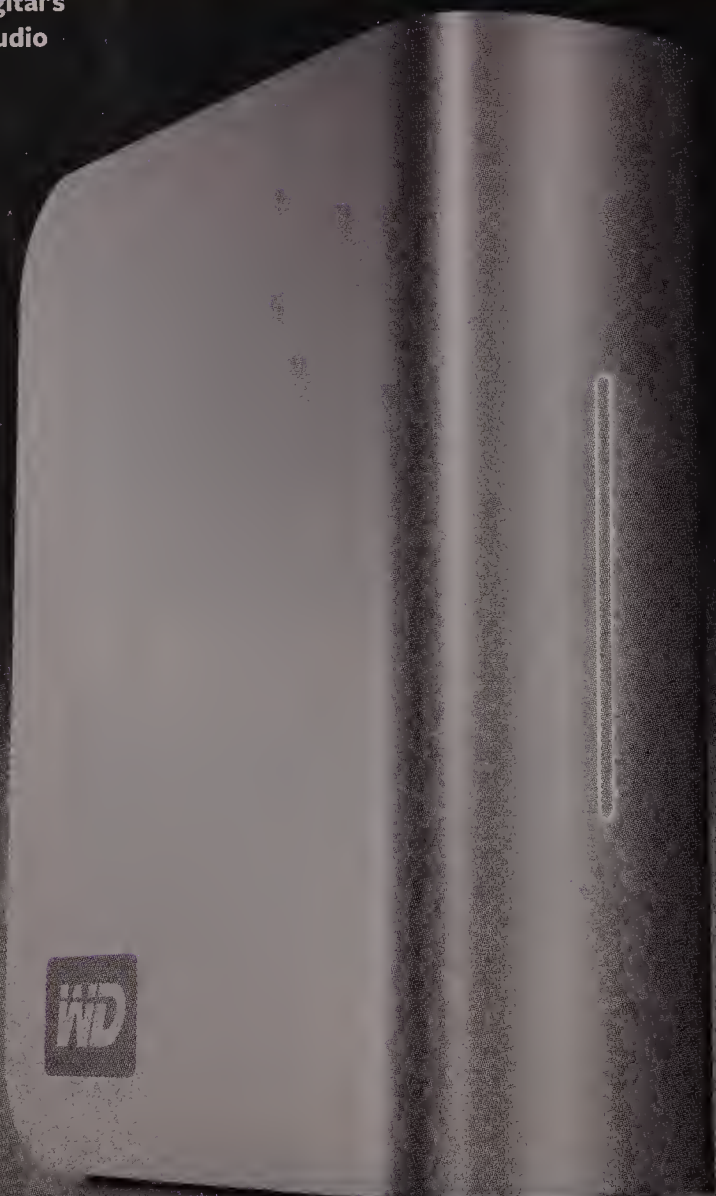
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Reviews

Western Digital's
My Book Studio
Edition



Huge Hard Drives

Desktop drives help Time Machine move forward (and back) **BY JEFFY MILSTEAD**

While the improvements in Leopard (aka OS X 10.5) are many, they're anything but cosmetic. This is nowhere more evident than in Time Machine, Leopard's powerful automated backup feature. For some people, Time Machine has been the most hotly anticipated feature of Leopard and arguably the most compelling reason to upgrade.

Time Machine's polished user interface, with its time-travel metaphor, will instantly grab the attention of anyone who has struggled with the staid

backup offerings thus far available for the Mac. With Time Machine, the ability to easily search for and retrieve previous incarnations of a file, whether it's the version of a report from ten hours ago or the one from ten weeks ago, is an enticing demonstration of what awaits Mac users.

The bigger the drive, the better. Give Time Machine ample room for storing several years' worth of files.

Of course, this powerful backup engine is of little use unless you supplement your Leopard upgrade with a massive amount of new hard-drive space so that Time Machine can go full tilt at keeping your data safe. To help you with that task, we've reviewed seven worthy contenders for getting your Time Machine backups in gear. They represent a sampling of the largest single-drive external units available today, ranging from 750GB to 1TB in capacity, and with a mix of transfer rates and connection options, including USB-only drives, triple-port drives, and drives with quad-port capability.

For this roundup, we tested the following devices: the Buffalo DriveStation TurboUSB (750GB), the Iomega UltraMax Hard Drive (750GB), the Maxtor OneTouch 4 Plus (750GB), the OWC Mercury Elite-AL Pro (1TB), the SimpleTech SimpleDrive USB 2.0 External Hard Drive (1TB), the Western Digital My Book Studio Edition (1TB), and the WiebeTech RTX100-SJ (1TB).

Massive Is a Must

Time Machine is designed to back up your boot drive, and because you'll typically be running from the same boot drive for a few years, it's better to start out by giving Time Machine ample room for storing the mind-numbingly large number of file revisions you and your Mac will generate during this period. Translation: the bigger the drive, the better. Although you could use a smaller-capacity portable drive for your Time Machine backups, the massive 750GB and 1TB drives available today are offered only in desktop models. And although you may be tempted to purchase a drive of lesser capacity, the drives presented here offer ample space for Time Machine to maintain a full complement of your Mac's backed-up files without running out of space and beginning to overwrite your previ-

HOW WE RATE

OUTSTANDING: ★★★★★ VERY GOOD: ★★★★ GOOD: ★★★ FLAWED: ★★ UNACCEPTABLE: ★

ous backups. That said, it's always a good idea to gauge how much storage space your current setup uses. Remember that Time Machine can't defy the laws of physics and compress your files into a superdense mass of data, so if you plan to use Time Machine, figure on buying a drive that's several times larger than the amount of data you plan to include in your backups.

If the 750GB and 1TB capacities we looked at in this review are not quite right for you, most vendors offer similar models in several other storage capacities—and in some instances, outfitted with more or fewer ports. OWC, for example, offers the widest range of capacities—a total of six sizes, starting at 250GB and going up to 1TB; Maxtor sells three capacities, starting at 250GB.

What's in the Box

Being desktop models, all the drives reviewed here either stand upright or lie flat on your desktop within reach of your Mac, and all use external power adapters. Although we prefer the smaller power adapters that plug directly into the wall (these ship with

the Western Digital, Maxtor, and SimpleTech drives), the larger brick-style power supplies of the other drives actually fit better when plugged into a multiple-outlet strip. The three drives featuring FireWire 800—the Iomega, OWC, and Western Digital—include two FireWire 800 ports, useful for daisy-chaining a connection to multiple devices. The Maxtor is the only drive in the pack that doesn't have a physical on/off switch—however, this is a minor issue in practice, because the drive will automatically switch into low-power mode after a short period. Still, if you're the traditional type, you may miss this feature. The SimpleTech, the OWC, and the WiebeTech lack a hole for tethering a security cable, a possible buying consideration if you're concerned that someone might walk off with the drive.

With the exception of the WiebeTech, all the drives include some form of backup utility. This may not be a selling point, however: the advent of Time Machine will likely make the bundled backup software less attractive to Leopard users. Still, the software is there if you want to use it. Plus, for the drives

Pressure Drop

In terms of hard drives, technological advances are usually more evolutionary than revolutionary. And in recent years, these improvements have come at a very low price. In 2002, 120GB was a typical available capacity, and such drives cost about \$347, or about \$2.89 per gigabyte (based on a *Macworld* roundup of FireWire hard drives in July 2002). Compare this with the 750GB and 1TB drives of today, which offer more than eight times the storage space at an average cost of \$374 (based on the prices in this article), at a mere 8 percent increase in price and an average of 42 cents per gigabyte. And thanks to the relentless advance of technology, the same 120GB drive can be had today in a trimmer 2.5-inch casing for about \$113—94 cents per gigabyte, or nearly one third its cost in 2002 (based on a January 21, 2008, Google Checkout listing). Judging by the past, it's no wonder that we expect to reap the benefits of this continued downward price trend.

Hard Drives Compared

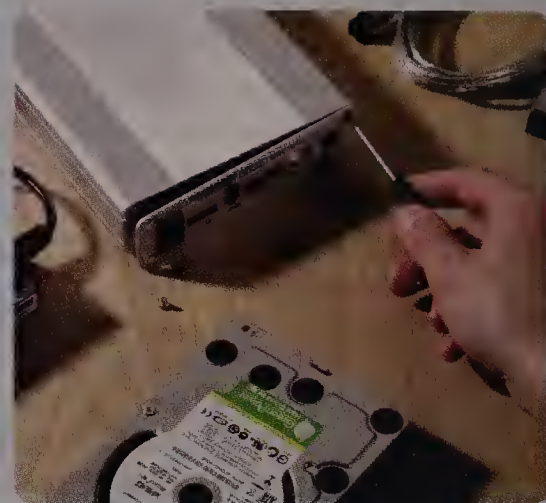
Product	RATING	PRICE ^a	CAPACITY	CONNECTORS	DIMENSIONS (IN INCHES)	INCLUDED SOFTWARE	SPECIAL FEATURES	ROTATIONAL SPEED (RPM)
DriveStation TurboUSB Buffalo	★★★★	\$299	750GB	USB 2.0 (1)	7.9 × 1.8 × 6.4	Memo LifeAgent	none	7,200
Mercury Elite-AL Pro OWC	★★★★	\$420	1TB	eSATA (1), FireWire 400 (1), FireWire 800 (2), USB 2.0 (1)	1.4 × 9.3 × 5.6	Prosoft Engineering Data Backup 3	quad interface, FireWire 800 ports (2)	7,200
My Book Studio Edition Western Digital	★★★★ OUR PICK	\$380	1TB	eSATA (1), FireWire 800 (2) ^c , USB 2.0 (1)	6.5 × 5.4 × 2.1	WD Anywhere Backup	capacity gauge, auto backup, quad interface, preformatted in HFS+	7,200
OneTouch 4 Plus Maxtor ^a	★★★★	\$290	750GB	FireWire 400 (2), USB 2.0 (1)	2.5 × 6.0 × 6.8	Maxtor Manager ^d	OneTouch Backup	7,200
RTX100-SJ WiebeTech	★★★	\$527	1TB	eSATA (1), USB 2.0 (1)	2.3 × 8.1 × 5.5	none	trayless drive insertion, door latches and locks	7,200
SimpleDrive USB 2.0 External Hard Drive SimpleTech	★★★★	\$400	1TB	USB 2.0 (1)	1.5 × 8.3 × 5.0	ArcSoft TotalMedia Backup	capacity gauge, one-click backup	7,200
UltraMax Hard Drive Iomega	★★★★	\$304	750GB	eSATA (1), FireWire 400 (1), FireWire 800 (2), USB 2.0 (1)	1.6 × 9.5 × 5.5	EMC Retrospect Express	quad interface, preformatted in HFS+	7,200

^a Maxtor has been acquired by Seagate Technology. ^b Prices as of January 21, 2008. ^c Includes a FireWire 800-to-400 adapter cable. ^d Maxtor Manager for the Mac Leopard version is still in beta.

Building Your Own Hard Drive, Step-by-Step



Step 1: Gather Your Equipment Depending on the enclosure kit you buy, some variation of the following items will be included in the box: a case **A**, an eSATA cable **B**, a FireWire 800 cable **C**, a USB 2.0 cable **D**, a drive mechanism **E**, a screwdriver **F**, and a power supply **G**.



Step 2: Open the Drive Case Use the screwdriver to remove the screws from the enclosure, so that the back slides mostly or entirely off.

that include a one-click backup feature (the Maxtor and SimpleTech), this bundled software can be useful for performing backups of data that's ill-suited to Time Machine—for example, large, single files that change frequently, such as a virtual-machine file from Parallels Desktop. However, some of the bundled software is less useful: SimpleTech ships the TotalMedia Backup from ArcSoft, a PowerPC-only OEM product. It sometimes behaved erratically on Leopard in our tests. Plus, the company doesn't even give you a backup copy of the software on CD (it's supplied on the drive itself). Maxtor's bundled software, Maxtor Manager, is not currently

Leopard-compatible, but a beta version is in the works.

Any drive will work with Time Machine as long as it has been formatted in HFS+. When you plug in a drive, Time Machine asks if you want to use it as a backup destination. Time Machine is designed to work automatically in the background (the default setting is to back up every hour), whereas the backup-button features of these drives are intended for user-initiated backups. Time Machine doesn't respond to button backup commands, nor would you necessarily want it to, since it's always on, doing scheduled backups for you.

Performance

For performance benchmarking, we subjected all the drives to our standard battery of tests, running each test on all the ports available on that particular drive: four drives feature an eSATA port, which is the external version of the drive's speedy internal SATA connector; four have FireWire 400, FireWire 800, or both types of FireWire ports, and all of the models offer USB 2.0 support. This eclectic mix of hard-disk mechanisms and port speeds yielded a range of performance, with the logical conclusion that faster ports gave better results—although not always as dramatic as we would like.

DriveStation TurboUSB (750GB)



PROS: Bundled backup software.

CONS: Plain design; USB-only.

PRICE: \$299

COMPANY: Buffalo, www.buffalotech.com

FULL REVIEW: macworld.com/3293



Mercury Elite-AL Pro (1TB)



PROS: Quad interface; bundled backup software.

CONS: No slot for anti-theft cable; expensive.

PRICE: \$420

COMPANY: OWC, www.macsales.com

FULL REVIEW: macworld.com/3294



My Book Studio Edition (1TB)



PROS: Quad ports; factory-formatted for the Mac; backup and button-control software included.

CONS: Capacity gauge doesn't work with eSATA.

PRICE: \$380

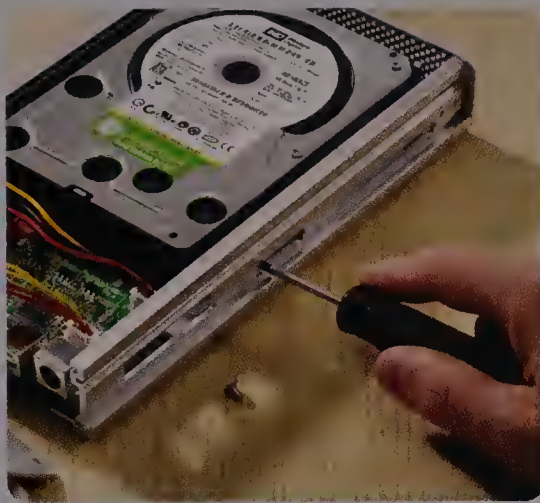
COMPANY: Western Digital, westerndigital.com

FULL REVIEW: macworld.com/3295





Step 3: Attach Power and SATA Cables Lay the drive on the enclosure so that the short internal power and SATA cables can reach the connectors. Attach the cables to the drive.



Step 4: Place and Secure the Drive Align the drive flat on the rails, making sure the attached cables lie flat and no cables are caught on the side of or underneath the drive. Use the included screws to fasten the drive to the enclosure.



Step 5: Replace the Top Cover Slide the top cover back on the enclosure and replace the screws you removed in Step 2.

eSATA is the powerhouse port, and those drives with eSATA offered a truer indication of what their raw hard-disk mechanisms were capable of delivering. The differences between them ranged from a dramatic 19 percent increase (the WiebeTech versus the Iomega on the low-memory test) all the way up to a 25 percent speed boost (OWC versus Western Digital) on the file-duplication test. The file-copy test revealed fewer differences among the drives when they were connected via eSATA. Where SATA comes into its own is in a RAID (Redundant Array of Independent Disks) configuration, which uses multiple drives. But until Apple gives eSATA

the official nod by including a native eSATA port on Macs, you'll need to also shell out for a compatible PCIe, PCI, or PCI-X card (for a desktop Mac) or an

ExpressCard (for a MacBook Pro, for example) to enjoy the speed gains afforded by the eSATA-equipped drives in this roundup.

Back Up Multiple Computers with Time Machine

If you have more than one Mac and don't want to use a separate hard drive to back up each one, Time Machine can help. You can use one drive to back up multiple computers with Time Machine in three ways.

SneakerNet Attach a drive to one Mac, let Time Machine run, and then disconnect the drive and attach it to another Mac. Time Machine stores backups for each computer in a separate folder, so you needn't worry about one computer's backups overwriting the other's. Before disconnecting a drive, click on the eject icon next to its name in the Finder sidebar. Moving a drive from one computer to another has the advantage of speed: backups will proceed much quicker than they would over a network.

Network Backups Leave the drive connected to one of your Macs, share it through Personal File Sharing, and connect to it over the network. Time Machine will keep one computer's backups separate from another's. If you're using Time Machine to back up several computers over a network, keep three

things in mind: network backups are slower than backing up to FireWire or USB drives; when your computers are backing up or restoring files over the network, other network activities can slow down significantly; network backups require that the computer sharing the disk be on and awake. If that computer is turned off or goes to sleep, Time Machine must wait to resume backups until it reappears on the network.

Time Capsule The easiest way to back up multiple Macs is to purchase a Time Capsule (500GB, \$299; 1TB, \$499), Apple's network backup appliance. Time Capsule combines the features of an AirPort Extreme base station and a large hard drive that's preconfigured for use with Time Machine. After plugging in the device and configuring its network settings, just select the Time Capsule as the backup destination for Time Machine on each computer in your home or office.

For more information about Time Machine, see "Better Backups with Time Machine," page 72. —JOE KISSELL

OneTouch 4 Plus (750GB)



PROS: USB and FireWire 400 ports; bundled backup software; dedicated backup button; inexpensive.

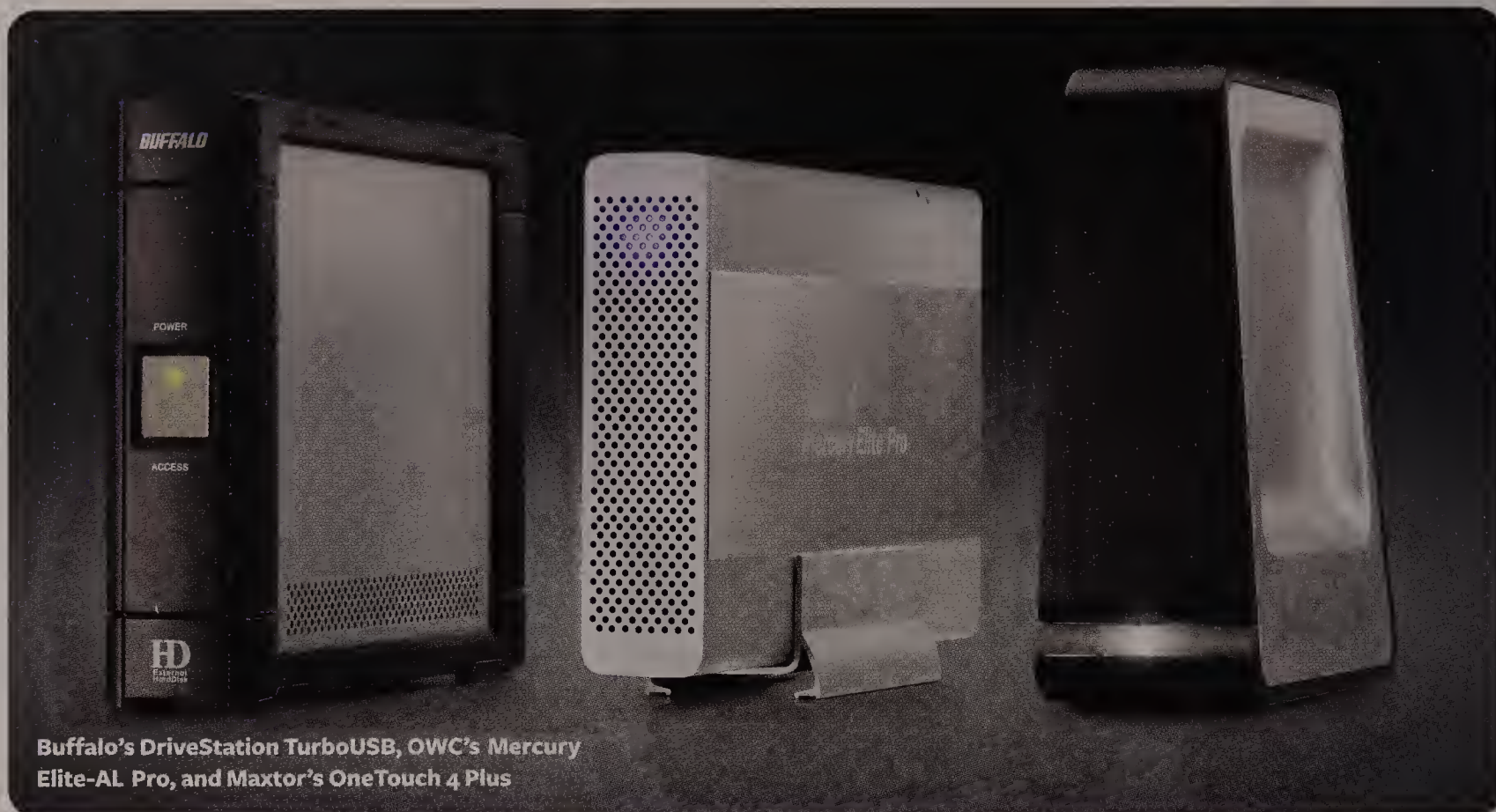
CONS: No on/off switch.

PRICE: \$290

COMPANY: Maxtor, maxtorsolutions.com

FULL REVIEW: macworld.com/3296





For maximum speed, you'll want a drive with an eSATA port. Although we found eSATA performance between 4 and 13 percent faster than FireWire 800, FireWire in general is more common, and is more relevant to most users because it's built into all Mac desktops and laptops in either 400 or 800 configurations or combinations.

Even if you weren't planning to buy an external hard drive to use with Time Machine, FireWire 400 and 800 drives are still useful for storing vast numbers of files that you don't need every day, for scratch disk space needed to use

powerful programs like Photoshop, and as an emergency boot drive.

The OWC drive pulled ahead of the other two FireWire 800-equipped drives (the Western Digital and the Iomega) in all three tests, and was up to 15 percent faster than the Iomega on the file-duplication test and 8 percent faster than both the Western Digital and the Iomega drives on the file-copy test.

In our tests on the USB front, the USB-only Buffalo DriveStation, featuring a supposedly speedy custom driver, did not meet performance claims that Buffalo listed on its Web site. It tied

with the Maxtor in the file-duplication test; and on the low-memory test, it performed 17 percent slower than the fastest USB performer, the SimpleTech. In the file-copy test, the SimpleTech was on a par with the pricier OWC drive, and it edged out the next two fastest drives in the file-duplication and low-memory tests.

Macworld's Buying Advice

With its quad-port capability and attractive styling, the Western Digital My Book Studio Edition is our overall pick. If you have less money to spend or you

RTX100-SJ (1TB)



PROS: eSATA port; latching access door.

CONS: No FireWire; no security port; no bundled software; pricey.

PRICE: \$527

COMPANY: WiebeTech, www.wiebetech.com

FULL REVIEW: macworld.com/3297



SimpleDrive USB 2.0 External Hard Drive (1TB)



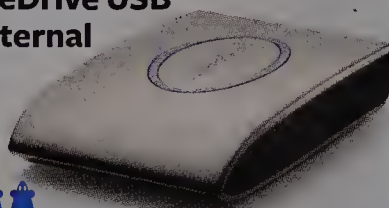
PROS: Stylish design; built-in capacity gauge; bundled backup software.

CONS: USB-only; bundled software not shipped on CD; no slot for anti-theft cable.

PRICE: \$400

COMPANY: SimpleTech, www.simpletech.com

FULL REVIEW: macworld.com/3298



UltraMax Hard Drive (750GB)



PROS: Quad interface; bundled backup software.

CONS: Slow in some tests.

PRICE: \$304

COMPANY: Iomega, www.iomega.com

FULL REVIEW: macworld.com/3299

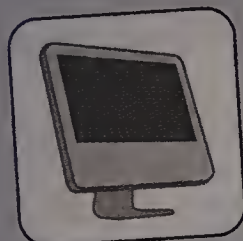


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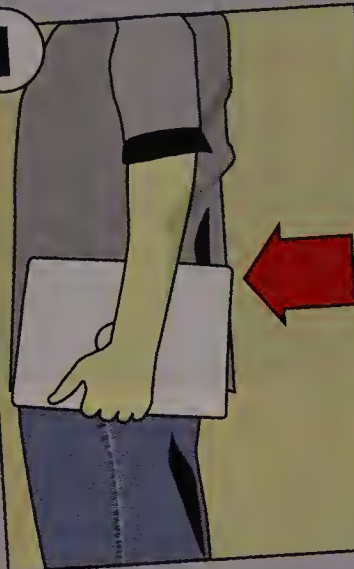
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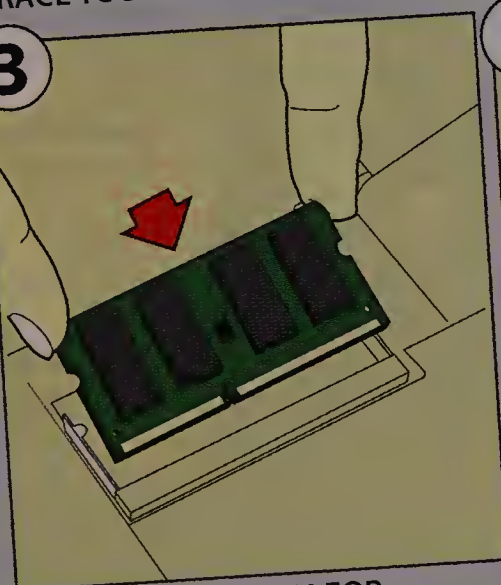
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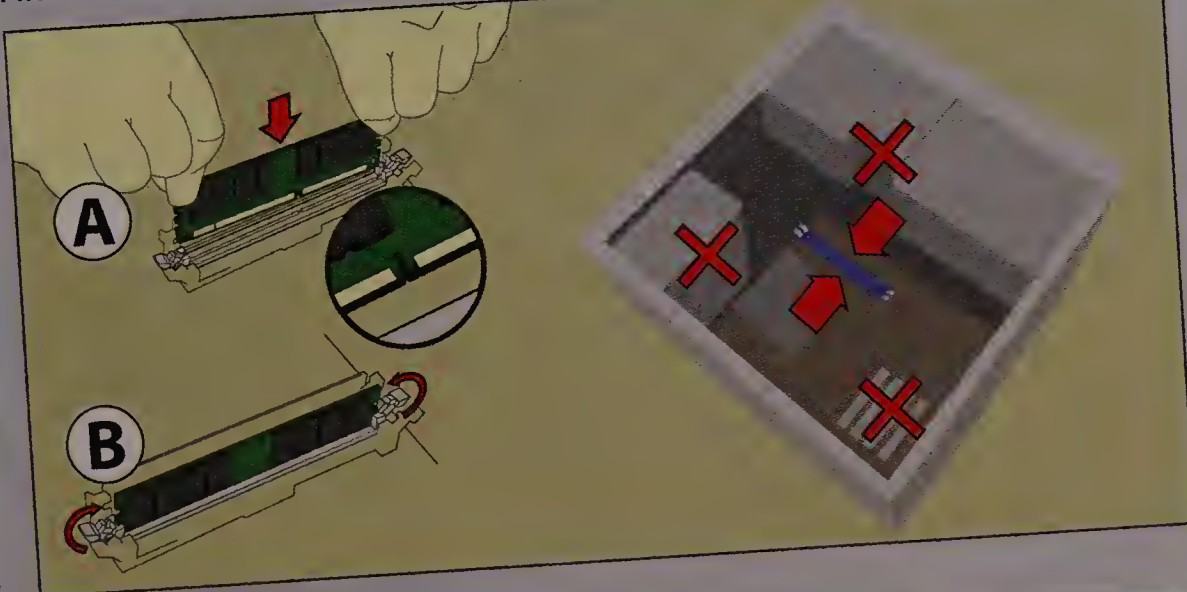
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**SimpleTech's SimpleDrive
USB 2.0 External Hard Drive,
WiebeTech's RTX100-SJ, and
Iomega's UltraMax Hard Drive**



don't think you need a full terabyte of storage, check out the 750GB Iomega UltraMax. For those who don't mind being stuck in the slow lane, the USB-only Buffalo DriveStation Hard Drive will get the job done. If the plain looks of the Buffalo don't do it for you, you can opt for the trapezoidal Maxtor One-Touch 4 Plus with a FireWire 400 port.

Although the quad-interface OWC Mercury Elite-AL Pro was the champ in many of our tests, it is also \$40 more than the Western Digital drive. The SimpleTech SimpleDrive is \$20 more than the Western Digital drive, and its lack of ports other than USB make it less attractive than others. And although the latching and lockable door featured on the

WiebeTech RTX100-SJ is novel, the drive's \$527 price tag puts it beyond the reach of many users, with the \$100 enclosure-only version perhaps more worthy of consideration as the basis for your own do-it-yourself drive. ❌

Jeffy Milstead is a former Macworld Lab analyst and a writer living in San Francisco.

Frankenstein's Hard Drive

Conventional wisdom says that the more you pay, the more you get. But is that always the case? Can you build a quality drive on the cheap just by slapping it together yourself? In theory, the DIY option will save you money. You're not paying for the overhead of a traditional drive vendor (those ads you see aren't free), and you won't be forced to shell out for bundled software you may not need. Building it yourself lets you call the shots: do you picture a drive outfitted in a sleek metal chassis with a black or anodized aluminum finish? Or is translucent plastic more your style? If portability is more important to you than speed, you can opt for a smaller bus-powered enclosure suitable for a 2.5-inch drive. However, if budget is your overriding factor, you can forgo the pricier FireWire 400 or 800 enclosures in favor of a no-frills USB-only chassis. These and an array of other choices await people who decide to piece together their own parts.

The raw ingredients for a DIY drive are an enclosure, a hard-disk mechanism, a screwdriver, and some patience. You can purchase the enclosure and hard drive either separately or from the same vendor. You might even have your own hard-disk mechanism left over from a previous upgrade. Whatever your situation, sources for these items abound. As it happens, two of the vendors in this roundup—OWC and WiebeTech—sell empty chassis and drives. The design of some enclosures, such as the trayless WiebeTech RTX100 series (included in our review), makes it easy to add the mechanism of your choice.

At \$200, WiebeTech's empty quad-port enclosure is a bit steep if you're trying to save a dime, though the dual-port SJ enclosure,

included in our roundup, costs \$100 without a drive. A cheaper triple-port alternative is the \$90 OWC Mercury Elite-AL Pro enclosure, which provides two FireWire 800 ports, along with a FireWire 400 port and a USB port. Substituting a no-frills USB-only enclosure could shave the cost too.

Commodity enclosures are widely available; however, not all enclosures are created equal. When choosing an enclosure, always check whether the built-in controller supports the drive capacity you plan to use it with. Another area where you might benefit by building your own drive is with the warranty: some commercial drives offer only a one-year warranty, while hard-disk mechanisms typically come with a three- or five-year warranty.

We purchased a 1TB Western Digital GreenPower SATA II drive from OWC's Web site for \$275 and splurged for the OWC Mercury Elite-AL Pro quad enclosure for \$110—a total of \$385.

We even ran our do-it-yourself drive through the same tests as the rest of the drives in our roundup and found that it performed admirably, coming in second to the WiebeTech in all-around eSATA performance and second to the OWC drive in FireWire 800 performance. We feature this custom-built drive in "Building Your Own Hard Drive, Step-by-Step" (page 42).

By building the drive ourselves, we were able to shave \$35 off the price of a similar fully configured drive (the OWC Mercury Elite AL-Pro for \$420, featured in this roundup). We got the case we wanted, quad ports, a Western Digital 1TB drive, and a better warranty.

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- iBryan, The Digital Guy



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Mac Pro Memory Up to 32GB

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What we're reviewing online this month

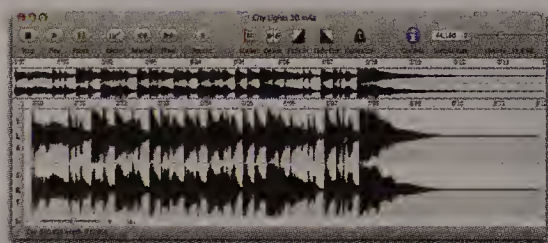
SOFTWARE

Mac OS X Server 10.5


RATING:  **PRICE:** ten clients, \$499

COMPANY: Apple **URL:** www.apple.com

Mac OS X Server 10.5—popularly referred to as Leopard Server—is the sixth major update to Apple's server operating system, and Apple's strongest version to date. Updated across the board, with a slew of major new features, it could be almost everything a small- to medium-size business needs in a server OS. If you don't already have a directory service or dedicated servers, and are just now thinking about implementing such a setup for the first time, Mac OS X Server 10.5 is a fine product; just keep in mind that some of its services don't work quite as well as they should in a heterogeneous environment (macworld.com/3313).

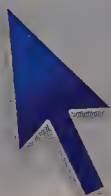


Sound Studio 3.5

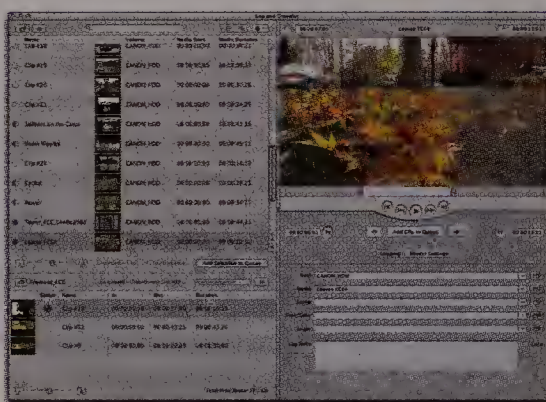
RATING:  **PRICE:** \$80 **COMPANY:** Freeverse
URL: www.freeverse.com

Sound Studio 3.5.5, an easy-to-use program for recording, editing, and applying effects to digital audio, can help you do everything from podcasting to digitizing those old cassette tapes and vinyl records you have lying around in the basement. Sound Studio now contains all of the tools necessary to create professional mixes. You can apply cross-fades; adjust equalization; and jazz up your productions with natural-sounding delay, chorus, flanger, echo, and reverb effects. Sound Stu-


FIND IT ONLINE For expanded reviews, type the blue URL at the end of each summary into your browser's address bar.



dio fits smoothly into your daily workflow without requiring a degree in audio engineering. It's a good tool to reach for when it comes time to produce a podcast, record the local garage band, or resurrect a noisy recording from the past (macworld.com/3312).




Final Cut Express 4

RATING:  **PRICE:** \$199 **COMPANY:** Apple
URL: www.apple.com

In the past, Apple offered three tiers of video-editing software. iMovie HD catered to beginners. At the other end of the scale, Final Cut Pro gave professionals the advanced features they needed for editing in the big leagues. Falling in between, Final Cut Express, using the same code base as Final Cut Pro, offered pro-level features for people who had hit iMovie HD's ceiling and wanted more editing control and options. Final Cut Express 4 redefines that tiered structure. The line between the new iMovie '08 and Final Cut Express is now a little blurry. Version 4's AVCHD support is a draw if you own a new video camera that shoots in that format. As an upgrade from Final Cut Express HD 3.5, however, the new version isn't tempting unless you need AVCHD support or FxPlug plug-ins. If you're an iMovie user and you find its capabilities too limited—or if you've chosen to skip iMovie '08 altogether—Final Cut Express 4 is a great way to jump into semiprofessional video editing at a fraction of the cost of Final Cut Studio (macworld.com/3315).



Madden NFL 08

RATING:  **PRICE:** \$40 **COMPANY:** Electronic Arts
URL: www.madden08.com

Only once in a blue moon does the storied Madden gridiron football game come to the Mac. In this case, it's been seven years. The game has changed a lot since then, but it's still great fun—at least for people who like the technical intricacies of the gridiron and the sophistication of the Madden game itself. If you're a newcomer to football games, Madden will easily overwhelm you. It looks fantastic—you can see the misty breath of players on the field during cold games, and you'll even see rain splash on the camera lens in bad weather. Just be aware that this game requires an Intel Mac with a discrete graphics chip (leaving out MacBook and Mac mini users). By the time you read this, the 2007-2008 NFL season will be receding into the past, so this is a fun way to keep the game alive, at least until the summer training camps (macworld.com/3316).

Colin McRae Rally Mac

RATING:  **PRICE:** \$50 **COMPANY:** Feral Interactive
URL: www.feralinteractive.com

Colin McRae Rally Mac is unarguably the most realistic and intense auto-racing game on the Mac right now—this game re-creates the thrills and spills of international rally racing, an auto sport that doesn't get the same coverage on U.S. TV that NASCAR does, but that ought to. You race a variety of different real-world cars on tracks across the globe, from North America to Europe to Japan, in more than 300 stages of competition and



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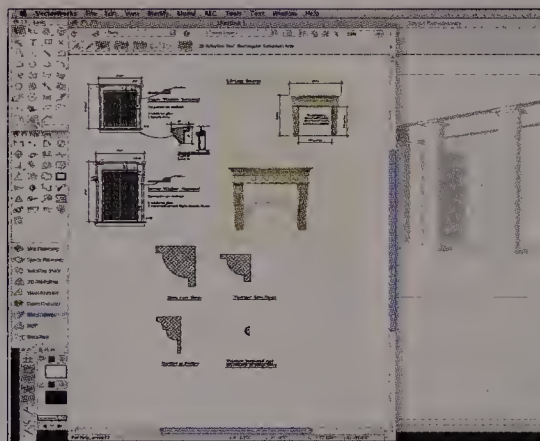
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REVIEWS macworld.com/reviews

across 20 classes of events. It requires a combination of split-second timing, as you whip your high-performance vehicle around hairpin corners, and concentration, as your Welsh codriver barks out navigational information to let you know what the road conditions are ahead. If you don't mind suffering with Mac-only multiplayer game play, you can even play online, but it doesn't matter much in the long run—the single-player mode is fabulous enough in itself (macworld.com/3317).



VectorWorks 2008 Δ

RATING: $\frac{1}{2}$ **PRICE:** \$1,195 to \$2,395
COMPANY: Nemetschek North America
URL: www.nemetschek.net

VectorWorks has been one of the premiere CAD (computer-aided design) programs for the Mac for years. Combining a powerful 2-D-drafting environment with integrated 3-D-modeling functionality, VectorWorks can take your project from planning to simple drafting to complex, photorealistic rendering. VectorWorks 2008 improves on and expands the program's already impressive array of capabilities. If you're in an appropriate profession for one of VectorWorks' design programs—Architect, Spotlight, Landmark, or Machine Design—you will find that VectorWorks 2008 is a great CAD program and an excellent value for the price (macworld.com/3319).

HARDWARE

DiamondVest for iPhone

RATING: $\frac{1}{2}$ **PRICE:** \$25 **COMPANY:** Agent 18
URL: www.agent18.com

A ruggedly designed skin case, the black DiamondVest for iPhone is a single piece of silicone that slips easily onto your iPhone. A tactile pattern resem-

bling diamond-plate metal makes the case easier to grip; the silicone is thick enough to protect your iPhone against everyday bumps and scratches but thin enough so that it doesn't add much bulk. Unlike some other skin cases, however, the DiamondVest doesn't include a protective covering for the iPhone's screen (macworld.com/3325).

imagePrograf iPF6100

RATING: $\frac{1}{2}$

PRICE: \$3,495

COMPANY: Canon

URL: www.canon.com

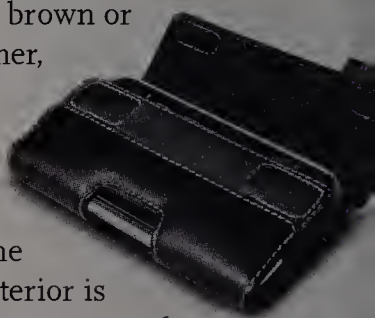
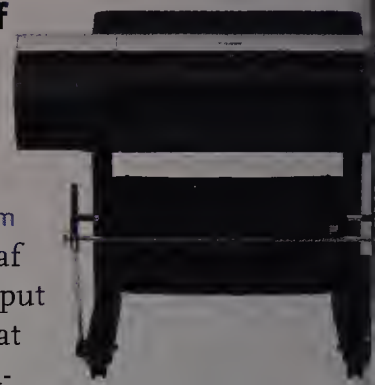
The imagePrograf iPF6100 should put an end to talk that Canon can't compete in the professional photo-printer market. With a better ink formulation and an improved print head, this 12-ink printer produces excellent images on both glossy and fine-art media. Its print speed is also quite good. Canon needs to clean up its profile management, but overall, the imagePrograf iPF6100 is a very good printer that can hold its own in a competitive market (macworld.com/3320).

Leather Folio for iPhone

RATING: $\frac{1}{2}$ **PRICE:** \$40 **COMPANY:** Incase

URL: www.goincase.com

A leather, horizontal holster-style case, the Leather Folio offers quick access to your iPhone while you carry it on your belt. Available in brown or black nappa leather, the well-made case has canvas or nylon trim (depending on the color) and the interior is lined with suede to prevent the case from scratching your iPhone; Velcro tabs secure the lid. The iPhone's speaker, microphone, and headphone jack are accessible no matter which way you put the phone in the case; a notch at the bottom lets you push the phone out easily, and the back side features a belt clip that attaches securely to the case (macworld.com/3324).



FOLEE II

THE TRAVEL BAG FOR THE CREATIVE PRO

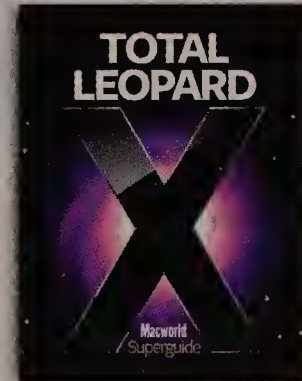
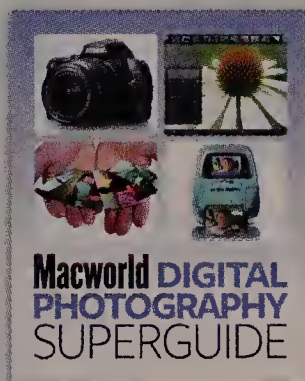
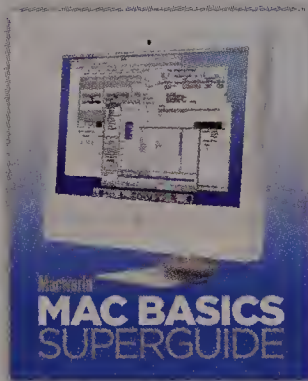
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PRINTERS

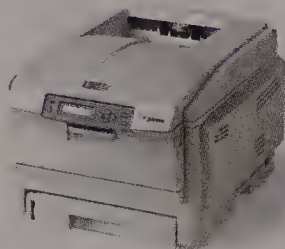
LASER PRINTER C6100dn

RATING:

PRICE: \$799

COMPANY: Oki Data

URL: www.okidata.com



The C6100dn, from Oki Data, produces great-looking prints and includes built-in duplexing. It also offers easy network connectivity and quick printing speeds (macworld.com/1670).

INK-JET PHOTO PRINTER

Stylus Photo 1400

RATING:

PRICE: \$276

COMPANY: Epson

URL: www.epson.com



Epson's Stylus Photo 1400 prints photos rich in color and detail. Capable of printing photos as large as 13 by 19 inches, this printer is surprisingly affordable, without compromising quality (macworld.com/2924).

COMPACT PHOTO PRINTER

PictureMate Zoom PM 290

RATING: **PRICE:** \$200

COMPANY: Epson

URL: www.epson.com



Affordable, problem-free, and fun to use, the PictureMate Zoom is the best and fastest portable photo printer you can currently buy (macworld.com/3102).

MULTIFUNCTION INK-JET

Photosmart C7180

RATING:

PRICE: \$320

COMPANY: Hewlett-Packard

URL: www.hp.com



The HP Photosmart C7180's features, connection options, and solid print and

scan quality make it an excellent ink-jet MFP (macworld.com/2475).

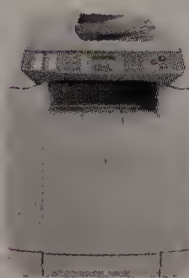
MULTIFUNCTION LASER X500N

RATING: **PRICE:** \$396

COMPANY: Lexmark

URL: www.lexmark.com

NEW Don't let the Lexmark X500N's low price tag fool you. This



all-in-one color laser printer, scanner, and copier is a strong overall performer (macworld.com/3278).

FLATBED SCANNER

Perfection V700 Photo

RATING:

PRICE: \$478

COMPANY: Epson

URL: www.epson.com



The Epson Perfection V700 Photo is an excellent midrange scanner for people who need to scan both reflective media and transparencies, espe-

MACS

PRODUCT	PROCESSOR	RATING	PRICE ^A	DISPLAY	SPEEDMARK 5 SCORE ^B	FIND CODE ^C
DESKTOP						
iMac 	Intel Core 2 Duo/2GHz		\$1,194	20 inches		210 3029
	Intel Core 2 Duo/2.4GHz		\$1,490	20 inches		245 3028
	Intel Core 2 Duo/2.4GHz		\$1,779	24 inches		245 3027
Mac mini 	Intel Core 2 Duo/1.83GHz		\$594	not included		159 3030
	Intel Core 2 Duo/2GHz		\$794	not included		172 3031
Mac Pro 	Intel Xeon/two dual-core 2.66GHz		\$2,131	not included		260 2489
PORTABLE						
MacBook 	Intel Core 2 Duo/2GHz		\$1,094	13 inches		172 3214
	Intel Core 2 Duo/2.2GHz		\$1,235	13 inches		185 3215
	Intel Core 2 Duo/2.2GHz (black)		\$1,420	13 inches		186 3216
MacBook Pro 	Intel Core 2 Duo/2.2GHz		\$1,816	15 inches		185 2932
	Intel Core 2 Duo/2.4GHz		\$2,246	15 inches		199 2933
	Intel Core 2 Duo/2.4GHz		\$2,330	17 inches		204 2934

^A From a PriceGrabber survey of retailers as of January 18, 2008. ^B Speedmark 5 is Macworld Lab's standard test tool for benchmarking systems running Mac OS X 10.5 (Leopard). For information on Speedmark testing, go to www.macworld.com/speedmark. ^C Typing in find codes after macworld.com/ directs you to a product's review or overview. For example, macworld.com/2489 contains an overview of the 2.66GHz Mac Pro.

Top Products are those we've recently reviewed in a comparison of like products. As new products become available, we'll update this list. For longer reviews of these products and for other product recommendations, go to macworld.com/reviews. All prices are the best current prices taken from a PriceGrabber survey of retailers as of January 18, 2008.



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\$399*



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HL-4070CDW
Wireless Color Laser Printer
\$499*



MFC-9440CN
Color Laser All-in-One
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*Estimated street price, dealer price may vary. ¹pages per minute.

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Brother Industries, Ltd. Nagoya, Japan

cially at high resolutions (macworld.com/1519).

DIGITAL CAMERAS

DIGITAL SLR

D40

RATING: ★★★★★

PRICE: \$470

COMPANY: Nikon

URL: www.nikonusa.com



The Nikon D40 is a great value. This 6.1-megapixel camera comes with every feature you'd desire in a DSLR, such as adjustable ISO, Raw mode, and a variety of image-processing features (macworld.com/2498).

COMPACT DIGITAL CAMERA

NV11

RATING: ★★★★★

PRICE: \$263

COMPANY: Samsung

URL: www.samsung.com



An excellent all-around camera, the Samsung NV11 is equally accommodating of beginners and advanced shutterbugs (macworld.com/2984).

MINIDV CAMCORDER

PV-GS320

RATING: ★★★★★

PRICE: \$359

COMPANY: Panasonic

URL: www.panasonic.com



Compared with other 3-CCD MiniDV camcorders, the Panasonic PV-GS320 is a bargain. And it's a good choice for people who want a camcorder that shoots high-quality video and still images for half the cost of a high definition device (macworld.com/2701).

LCD MONITORS

LARGE DISPLAY

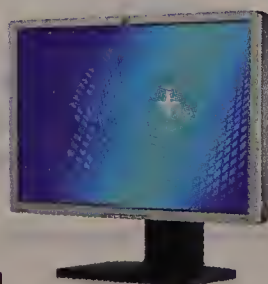
LP2465

RATING: ★★★★★

PRICE: \$589

COMPANY: Hewlett-Packard

URL: www.hp.com



The LP2465 is an affordable and flexible 24-inch desktop LCD with a 16:10 wide-screen aspect ratio that immediately calls to mind the cinema (macworld.com/2508).

MEDIUM DISPLAY

MultiSync

2190UXi

RATING: ★★★★★

PRICE: \$977

COMPANY: NEC

URL: www.necdisplay.com



The 21-inch NEC MultiSync 2190UXi does not come cheap, but it offers vivid and accurate colors, as well as a wide viewing angle (macworld.com/1445).

DUAL-LAYER DVD BURNER

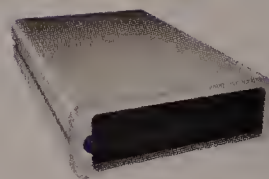
d2 DVD+/-RW with LightScribe

RATING: ★★★★★

PRICE: \$97

COMPANY: LaCie

URL: www.lacie.com



Speedy and versatile, the LaCie d2 external rewritable drive has the added bonus of being able to burn LightScribe images—a cool disc-labeling technology (macworld.com/2263).

FIREWIRE HARD DRIVES

DESKTOP DRIVE

G-Drive Q 500GB

RATING: ★★★★★

PRICE: \$279

COMPANY: G-Technology

URL: www.g-technology.com



The G-Drive Q SATA hard drive has nearly every type of connection you could want. It operates without a fan, so it's very quiet—you hear only the occasional spin of the drive (macworld.com/1622).

PORTABLE DRIVE

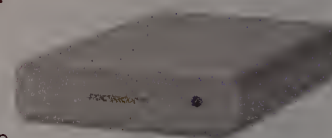
Rocbit 2B

RATING: ★★★★★

PRICE: \$213



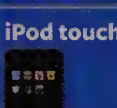
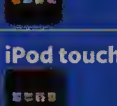
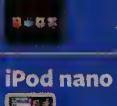
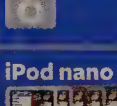
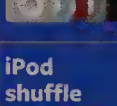
COMPANY: Rocsecure

URL: www.rocsecure.com



The Rocbit 2B is a fast and pleasantly quiet portable hard drive featuring real-time encryption. It's well worth its cost if security is a concern (macworld.com/1443).

iPODS

PRODUCT	CAPACITY	RATING	PRICE ^A	DISPLAY	BATTERY LIFE	MEDIA SUPPORTED	FIND CODE ^B
 iPod classic	80GB	★★★★★	\$230	2.5-inch color	30 hours of music playback; 5 hours of video playback	Music, photos, album art, video, games	3090
 iPod classic	160GB	★★★★★	\$329	2.5-inch color	40 hours of music playback; 7 hours of video playback	Music, photos, album art, video, games	3091
 iPod touch	8GB	★★★★½	\$259	3.5-inch color	22 hours of music playback; 5 hours of video playback	Music, photos, album art, video	3092
 iPod touch	16GB	★★★★½	\$359	3.5-inch color	22 hours of music playback; 5 hours of video playback	Music, photos, album art, video	3093
 iPod nano	4GB	★★★★½	\$149	2-inch color	24 hours of music playback; 5 hours of video playback	Music, photos, album art, video, games	3094
 iPod nano	8GB	★★★★½	\$187	2-inch color	24 hours of music playback; 5 hours of video playback	Music, photos, album art, video, games	3095
 iPod shuffle	1GB	★★★★	\$66	none	12 hours of music playback	Music	2238

^A From a PriceGrabber survey of retailers as of January 18, 2008. ^B Typing in find codes after macworld.com/ directs you to a product's review or overview. For example, macworld.com/3092 contains an overview of the 8GB iPod touch.

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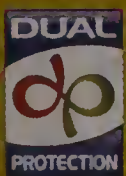
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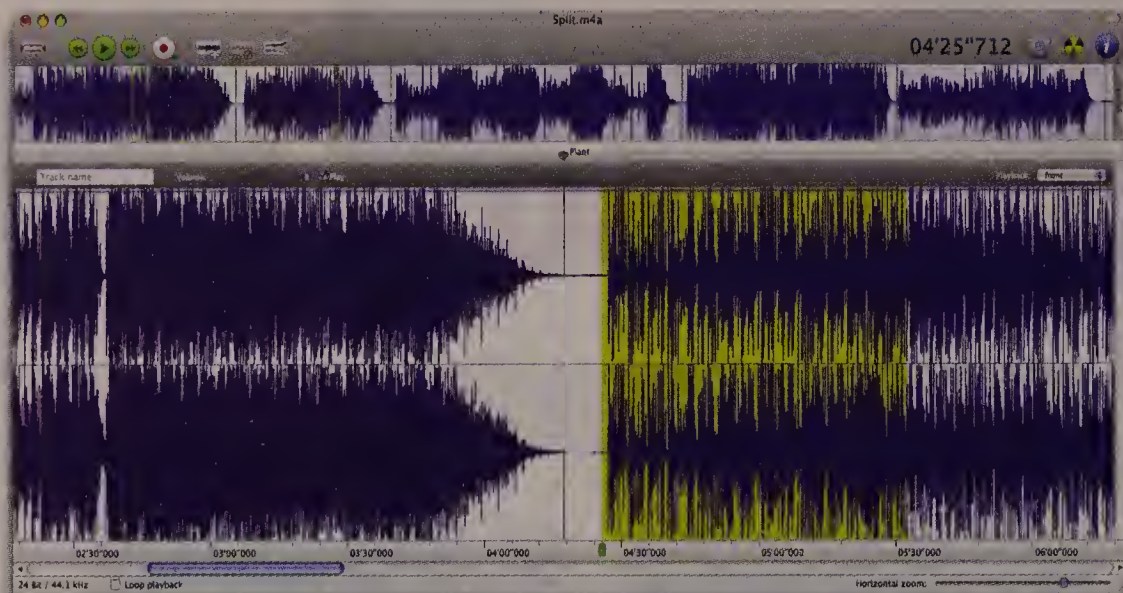
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Affordable Audio Editor Amadeus Pro gives you many of the features of higher-end audio-editing software, at a bargain price.

AUDIO

Amadeus Pro 1.2

RATING: **PRICE:** \$40 **COMPANY:** HairerSoft **URL:** www.hairersoft.com

With the increasing popularity of podcasting and do-it-yourself movie- and music-making, audio-editing software is finding its way into the mainstream. But many recent audio editors, though easy to use, hide the under-the-hood elements of waveform editing from the user. For those times when you need to be able to muck with audio at the sample level, open and edit less-popular audio formats, remove an offending click or pop, invert the phase of a stereo file to create a karaoke-style track, or convert multiple files to another format in one fell swoop, you need a tool like HairerSoft's Amadeus Pro.

Amadeus Pro plays it old-school, with an interface reminiscent of the Mac's original audio-editing program, SoundEdit. By default you'll see your audio track—stereo or mono—represented by a waveform spread out over a timeline; above that is an overview of the entire track. Buttons in the toolbar let you play and record, as well as add, delete, and split tracks. You can edit the volume envelope of a track by adding and mov-

ing points in the volume-control line that sits at the top of each track's waveform.

As with other traditional sound editors, you select sections of audio by dragging a selection cursor over the waveform; you can apply a variety of included filters and effects—such as Echo, Amplify, Equalizers, VST Effects, Balance, Invert Phase, Swap Channels, Audio Units, Change Pitch And Speed, Normalize, Fading, and Reverse—to the selected sound. There are also tools for reducing or eliminating noise. These noise-suppression features can adequately remove the most common kinds of noise you find in audio files—hum and rumble, for example.

You can insert markers automatically, based on time or periods of silence, or manually. You can then split the audio file into separate files based on those markers—useful for converting cassettes and LPs to a digital format.

Amadeus Pro also includes batch-processing capabilities that let you change the file format of, and even apply editing and processing actions to, a group of files simultaneously. And it offers audio-analysis tools, which work with both audio files and

sound coming into your Mac from an audio source.

Amadeus Pro supports a multitude of audio formats, including AAC, AIFF, Apple Lossless, FLAC, MP3, MPEG-4, Ogg Vorbis, and WAV. On the other hand, the program has a few quirks. For example, it supports multiple tracks, yet there's no easy way to cross-fade between one set of stereo tracks and the next. Also, some of the commands could be more intuitive and the program's documentation clearer.

Although there are a number of other excellent audio editors available for the Mac, what sets Amadeus Pro apart is its price: for a mere \$40 you get a remarkably complete audio-editing program.—CHRISTOPHER BREEN

UTILITY

BetterZip Quick Look Generator 1.1

RATING: **PRICE:** free **COMPANY:** MacItBetter **URL:** macworld.com/3334

Quick Look is one of my favorite Leopard features; select a file and press the spacebar, and you get an instant preview of the file's contents. Or at least you do if Quick Look supports that particular type of file. Unfortunately, Quick Look doesn't support many common file formats in a way that makes it actually useful.

For example, sometimes I come across a zip archive on my Mac and want to see what's inside without actually expanding the archive. Perhaps I created the archive a while back and have forgotten what I put inside, or maybe I downloaded something from the Internet and want to be sure of what it contains before opening it. Yet even though zip compression and expansion are built into Mac OS X, Quick Look doesn't show what's inside such an archive. Instead, when you use Quick Look on a zip file, you see just a generic zip-file icon, along with the archive's size and the date the file was last modified.

Leopard Tweaks

Whenever Apple releases a new version of Mac OS X, there will be things about it that people don't like. In Leopard, many of those things relate to the new interface. Here are a few utilities for tweaking the most controversial interface elements. Keep in mind that Apple doesn't officially support these changes, so use them at your own risk.

Panic's **CandyBar 3.1** (\$29; www.panic.com) lets you replace Leopard's new-look folder and system icons with ones of your choosing. It also lets you customize the look of the Dock and organize your favorite icons.

Blocksoft's **Docker 1.1** (payment requested; www.blocksoft.net) lets you switch between the standard (3-D) Dock and a Tiger-like 2-D version. You can also change the Dock's appearance (reflectiveness, separators, indicators, icons, and more) and add a special Favorites/Recents stack.

MD Softworks' **LeoColorBar 1.1** (free; homepage.mac.com/mdsw/) and Stefan Klieme and MacParc's **Leopaque 2.1** (free; www.macparc.ch) both get rid of Leopard's translucent menu bar. The former does so by editing your desktop picture so that the part behind the menu bar is a solid color; the latter changes the menu bar's color and translucency via a hidden system setting.

Rainer Brockerhoff's **Quay 1.0.1** (£7 or about \$10; www.brockerhoff.net) brings back the Tiger-style ability to put a folder or volume in the Dock and then access a hierarchical menu of that item's contents. But unlike Tiger's feature, Quay allows you to customize the appearance and sort order of the menus. —DAN FRAKES



The good news is that you can expand Quick Look's functionality with third-party plug-ins, and one of my favorites is MacItBetter's BetterZip Quick Look Generator 1.1. With BetterZip installed, Quick Look shows you the actual contents of the archive, including detailed information about each file: name, type, modification date, permissions, and compressed and uncompressed size; the difference between the last two numbers lets you know how much space archiving the files saved.

BetterZip also adds Quick Look support for ARJ, BinHex, BZip2, CAB, CHM, CPIO, DEB, DiskDoubler, GZip, ISO, LZH, MacBinary, RAR, RPM, SIT, TAR, and 7-Zip archives (but not for SITX, StuffIt's newest archive format).

A Configuration dialog box lets you change the view options for the plug-in. In the current version, however, these settings don't stick; if you log out, they reset to their default values. And I'd like the ability to extract a particular file or files without having to expand the entire archive. Still, the BetterZip plug-in is a welcome add-on. (If you're looking for more Quick Look plug-ins, QLPlugins.com tracks current offerings.) —DAN FRAKES

INTERNET

Domainer 1.1

RATING:  **PRICE:** \$40 **COMPANY:** Rage Software **URL:** www.ragesw.com

If you design Web sites for a living, or you're a prolific blogger with a lot of domains, you likely want to get a better grip on how popular they are and who's linking to them.

Rage Software's Domainer makes doing so easy. Enter a domain name and Domainer displays that domain's registration and expiration dates, along with information such as the registrar, FTP user name and password, and hosting details. You can track an unlimited number of domains.

Select a domain from your list, and Domainer provides the site's description (as provided by

the site's meta tags) and several types of information about the site's popularity, the number of incoming links, and the number of times your site appears in Del.icio.us (del.icio.us) bookmarks. You can also see the ten most-used Del.icio.us tags for your site, and the ten sites that refer the most traffic. This information can help you tailor your site's content, keywords, and promotion to boost traffic.

Domainer is also useful for keeping track of domains you don't own. For example, you can monitor competing Web sites to see how yours stacks up. You can also track domains you may wish to buy in the future; Domainer can even add a domain's expiration date to your iCal calendar so you can try to snap it up.

Overall, Domainer works superbly, looks great, and is easy to use. On the other hand, for its \$40 price tag, I wish it did a bit more. For example, I'd like to see integration with Google analytics, FeedBurner, and Mint, as well as a built-in whois search and perhaps even the ability to register domains right from Domainer. I would also like to see better documentation of the statistics that Domainer monitors. —JAMES DEMPSEY

Christopher Breen and Dan Frakes are senior editors at Macworld. James Dempsey runs the Creative Guy blog (www.jdempsey.com). Send your thoughts on this column, or on things you would like to see in future columns, to macgems@macworld.com.



Domain Name Tracker Domainer lets you keep tabs on your Web sites and their traffic.

THIN AIR

WE ANSWER YOUR QUESTIONS ABOUT THE MACBOOK

The arrivals of the MacBook and the MacBook Pro in 2006 meant the demise of the 12-inch PowerBook G4. Ever since, fans of small, light laptops have been hoping that Apple would come out with a Mac that was smaller and lighter than the 13-inch MacBook. With the introduction of the MacBook Air, Apple has finally fulfilled those hopes.

Making a laptop that weighs three pounds and measures less than an inch at its thickest point requires compromise. What makes the MacBook Air different from other thin-and-light notebooks is that—in typical fashion—Apple has chosen to make different compromises than other notebook vendors.

Apple didn't ship the MacBook Air in time for us to do a full hands-on review in this issue; look for that review in the near future. In the meantime, here's what we know about the thinnest Mac ever.

PHOTOGRAPHY BY PETER BELANGER



R, APPLE'S SLIMMEST LAPTOP EVER

So what exactly is the MacBook Air?

Whether you call it a “thin-and-light notebook” or a “subnotebook,” the MacBook Air is a portable Mac for which size is the main design concern. As noted, it’s less than an inch thick and weighs three pounds. Yet the MacBook Air is a full-fledged MacBook, running a Core 2 Duo processor, with reasonable amounts of RAM and hard-drive space. Compared with the MacBook and the MacBook Pro, it is indeed incredibly light and ultrathin. Its aluminum case is reminiscent of the MacBook Pro and other previous silvery Mac laptops. But its curved edges and tapered shape are unlike anything we’ve ever seen on a Mac laptop. If anything, it most closely resembles a really big iPod nano.

Didn’t Apple try something like this before?

The PowerBook Duo series and the PowerBook 2400c were Apple’s last forays into the market for really small laptops. However, both were substantially larger than the MacBook Air. Neither of them lasted. The Duo models were special in that they were dockable—you could insert them into a docking station, where they’d gain ports, connections to an external display, a keyboard and a mouse, and even access to a faster processor. The 2400c, which was designed for the Japanese market, never made a huge splash in the United States. Apple doesn’t offer a docking station for the MacBook Air.

How small is it, really?

The wedge-shaped laptop tapers from a maximum of 0.76 inches high at the back to 0.16 inches at the front. Its 12.8-inch

width and 8.9-inch depth are almost identical to the MacBook’s. It weighs three pounds. By comparison, the MacBook weighs five pounds, the 15-inch MacBook Pro 5.4 pounds, and the 17-inch MacBook Pro 6.8 pounds.

How did Apple make it so thin?

For starters, the MacBook Air’s main circuit board is remarkably small—at Macworld Expo, Steve Jobs showed a slide of the board next to a pencil for scale; the board is about as wide as a pencil is long. To get a whole Mac on a board that size, Apple asked Intel to create a special, smaller version of the Core 2 Duo processor (which Intel did—it’s 60 percent of the size of a standard Core 2 Duo). The 2GB of RAM appears to be soldered directly to the board; there are no accessible RAM slots for upgrades. The MacBook Air does without most standard Mac ports and has no optical drive. And its battery isn’t removable. The fixed battery allowed Apple to save space by omitting a battery-access compartment.

No optical drive? How am I supposed to install software or watch movies?

Apple’s guess is that you’ll have another computer in your house or office with a built-in CD or DVD drive. That’s why the company is including its new Remote Disc software with each MacBook Air. Install Remote Disc on any optical-drive-equipped Mac or Windows PC to which you have network access. That done, you’ll see a new Remote Disc item in the Finder sidebar on the MacBook Air; click on it, and you’ll see a list of all the computers on your local Bonjour network that have Remote Disc installed. Click on one of those computers, and your MacBook Air

will be able to use the drive on that remote system as its own. If your MacBook Air has a catastrophic problem and you need to reinstall Mac OS X, you can do that via Remote Disc. As for watching movies, Apple suggests that you use an iPod, an iPhone, or iTunes. (No, you can’t use Remote Disc to watch DVDs.)

What if I’m not around other computers when I need an optical drive?

If you think you’ll really require an optical drive when there are no friendly Remote Disc-equipped systems nearby, you can buy Apple’s external \$99 USB-powered SuperDrive specifically for the MacBook Air (the color even matches).

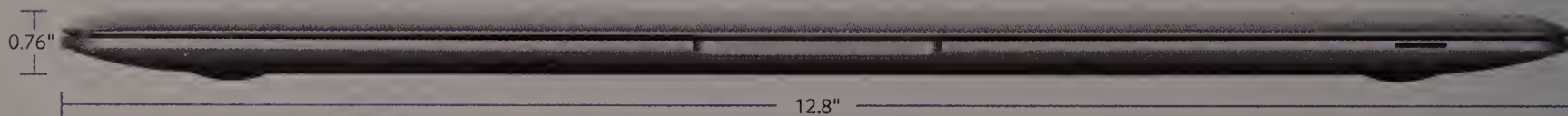
What do you mean when you say it “does without most standard Mac ports”?

On the right side of the MacBook Air, a drop-down door opens to reveal three ports. (You don’t flip the door open to expose the ports—you pull it down; when you do, the three ports also pull down from within the computer.) There’s a standard speaker-and-headphone minijack, a USB 2.0 port, and a micro-DVI port. Yes, this means that Apple’s three notebook lines require three different connectors to attach them to an external display—mini-DVI for MacBooks, DVI for MacBook Pros, and micro-DVI for MacBook Airs. The MacBook Air ships with two video adapters in the box, one for VGA and one for DVI. An optional \$19 adapter with S-Video and composite is also available.

What can the micro-DVI port do?

Though the MacBook Air uses the smaller micro-DVI port rather than the

ITS 12.8-INCH WIDTH AND 8.9-INCH DEPTH ARE ALMOST IDENTICAL TO THE ORIGINAL MACBOOK’S, BUT THE MACBOOK AIR IS MUCH THINNER.



MacBook Air: Inside and Out

How did Apple get a real computer in such a slim case? With clever design and several compromises.

A built-in iSight camera makes video chats a snap.

The display is as big as the MacBook's, but it uses an LED backlight like the 15-inch MacBook Pro's. That should make for better color and lower power consumption.

The large trackpad supports multifinger gestures for moving windows, panning around photos, and more.

The keyboard is full size and backlit, too.

The MagSafe connector is on the left side, near the back, in a slightly recessed space on the MacBook Air's underside.

The front of the MacBook Air has a sleep indicator and an infrared receiver—but no Apple Remote is included.

Search as hard as you like for an optical drive slot—you won't find one. Instead, you'll have to pay \$99 for the external SuperDrive or install the included Remote Disc software on a neighboring computer and use its optical drive instead.

Look on the bottom for a battery door and you won't find that, either: The MacBook Air's battery is not user-replaceable. Instead, you'll have to let Apple do it—which could be inconvenient if you run out of juice in the middle of a flight. Make sure your plane seat is near an outlet, and bring your AC adapter with you.

Ports are located on the right side of the MacBook Air, in a drop-down door. (Yes, the ports are *in* the door; pull it down, and the three ports come down with it.)

Yep, it's thin: the wedge-shaped MacBook Air narrows from just 0.76 inches in the back to a wafer-thin 0.16 inches in front.

MacBook's built-in mini-DVI, the computer otherwise has the same video capabilities as the MacBook: it will drive external displays as large as 1,920 by 1,200 pixels, including Apple's 23-inch Cinema Display, and it can use that display either as an additional monitor or to mirror the laptop screen's contents. The MacBook Air also uses the same integrated graphics processor as the MacBook—the Intel GMA X3100 with 144MB of shared memory.

I don't see any mention of Ethernet connectivity.

The MacBook Air doesn't include it. If you need Ethernet, Apple sells a \$29 10/100Base-T USB Ethernet adapter that connects to the USB port. For connectivity, the MacBook Air has built-in 802.11n wireless networking and Bluetooth 2.1 + EDR.

What else is missing?

This is the first Mac in a long time without a FireWire port, which means that you

probably won't be using it for traditional camcorder-style video capture. Also, there's no Kensington cable slot.

What about the display? Did Apple shrink the screen, too?

Thankfully, no. Like the MacBook, the MacBook Air has a 13.3-inch wide-screen display with 1,280-by-800-pixel resolution. But the two models' screens differ: the MacBook Air uses an LED (light-emitting diode) for its backlight, just like

The MacBook Family

How the specs for the MacBook Air, MacBook, and MacBook Pro compare

	MacBook Air	MacBook	MacBook Pro (15-inch)	MacBook Pro (17-inch)
PRICE (BASE)	\$1,799	\$1,099	\$1,999	\$2,799
HEIGHT (INCHES)	0.16–0.76	1.1	1.0	1.0
WIDTH (INCHES)	12.8	12.8	14.1	15.4
DEPTH (INCHES)	8.9	8.9	9.6	10.4
WEIGHT (POUNDS)	3.0	5.0	5.4	6.8
PROCESSOR	Intel Core 2 Duo 1.6GHz or 1.8GHz	Intel Core 2 Duo 2GHz or 2.2GHz	Intel Core 2 Duo 2.2GHz, 2.4GHz, or 2.6GHz	Intel Core 2 Duo 2.4GHz or 2.6GHz
RAM (STANDARD)	2GB of 667MHz DDR2 SDRAM	1GB of 667MHz DDR2 SDRAM	2GB of 667MHz DDR2 SDRAM	2GB of 667MHz DDR2 SDRAM
RAM (MAXIMUM)	2GB	4GB	4GB	4GB
STORAGE (STANDARD)	80GB 4,200-rpm Parallel ATA	80GB 5,400-rpm Serial ATA	120GB 5,400-rpm Serial ATA	160GB 5,400-rpm Serial ATA
STORAGE (OPTIONAL)	64GB solid-state drive	120GB, 160GB, or 250GB 5,400-rpm Serial ATA	160GB or 250GB 5,400-rpm or 200GB 7,200-rpm Serial ATA	250GB 5,400-rpm or 200GB 7,200-rpm Serial ATA
OPTICAL DRIVE	no ^A	24x slot-loading Combo drive or 8x slot-loading SuperDrive	8x slot-loading SuperDrive	8x slot-loading SuperDrive
DISPLAY (DIAG. INCHES)	13.3	13.3	15.4	17.0
DISPLAY TECHNOLOGY	glossy wide-screen LED backlit TFT	glossy wide-screen TFT	wide-screen LED backlit TFT (glossy optional)	wide-screen TFT (glossy optional)
RESOLUTION (NATIVE)	1,280 × 800	1,280 × 800	1,440 × 900	1,680 × 1,050
GRAPHICS PROCESSOR	Intel GMA X3100 with 144MB of DDR2 SDRAM shared with main memory	Intel GMA X3100 with 144MB of DDR2 SDRAM shared with main memory	Nvidia GeForce 8600M GT with 128MB–256MB of GDDR3 SDRAM	Nvidia GeForce 8600M GT with 256MB of GDDR3 SDRAM
WI-FI	built-in AirPort Extreme	built-in AirPort Extreme	built-in AirPort Extreme	built-in AirPort Extreme
ETHERNET	no ^B	built-in Gigabit Ethernet	built-in Gigabit Ethernet	built-in Gigabit Ethernet
BLUETOOTH	Bluetooth 2.1 + EDR	Bluetooth 2.0 + EDR	Bluetooth 2.0 + EDR	Bluetooth 2.0 + EDR
BUILT-IN SPEAKERS	mono	stereo	stereo	stereo
AUDIO OUT	analog	optical digital	optical digital	optical digital
USB 2.0 PORTS	1	2	2	3
FIREWIRE 400 PORTS	0	1	1	1
FIREWIRE 800 PORTS	0	0	1	1
DVI OUTPUT	micro-DVI ^C	mini-DVI ^E	DVI	DVI
VGA OUTPUT	yes ^D	yes ^F	yes ^G	yes ^G
KENSINGTON CABLE SLOT	no	yes	yes	yes
BATTERY LIFE (HOURS CLAIMED)	5.0	6.0	6.0	5.8
USER-REPLACEABLE BATTERY	no	yes	yes	yes

^AExternal USB MacBook Air SuperDrive optional. ^BUSB-Ethernet adapter optional. ^CMicro-DVI-to-DVI adapter included. ^DMicro-DVI-to-VGA adapter included. ^EMini-DVI-to-DVI adapter sold separately. ^FMini-DVI-to-VGA adapter sold separately. ^GDVI-to-VGA adapter included.



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BUFFALO

STORAGE WIRELESS MULTIMEDIA MEMORY

Solid-State Drives

When it comes to storage, the MacBook Air offers just one alternative to the standard 80GB drive: you can order the laptop with a 64GB solid-state drive (SSD). The price for that downgrade in storage capacity: \$999. Why would you pay so much more for less?

Think of SSD as a grown-up version of those flash memory sticks you slip into your Mac's USB ports. Instead of storing data on spinning platters, as a standard hard drive does, SSDs store data in solid-state memory—either NAND flash memory or SDRAM. Increase that USB stick's capacity and add an ATA or SATA interface, and you've got an SSD.

SSDs seem like the perfect mass storage devices for a notebook. They have no moving parts, so they're less susceptible to damage from the shocks and jolts of travel. SSDs can withstand ten times as much impact as a standard hard drive. They also deal well with vibration.

Then there's an SSD's parsimonious power consumption. Powered down, SSDs consume virtually no juice—somewhere around 0.05w. Even when operational, an SSD draws only 1w or so—about a third the consumption of a comparable hard drive.

In terms of seek times and throughput, SSD performance is about equal to that of a standard hard drive. But SSDs turn on instantly: They don't have to spin up platters as hard drives do, so they reduce computer boot, restart, and wake-up times substantially.

In addition to being sturdier, more power efficient, and faster than standard hard drives, SSDs are also slightly lighter and can, if necessary, be molded into different form factors to fit tight spaces. The circular platters of a hard drive don't allow for that kind of design flexibility.

As Apple's pricing indicates, SSDs are still extremely expensive. However, the cost of NAND memory is declining by about 40 percent per year. In other words, while solid-state drives may be extremely expensive now, they'll likely become more reasonably priced—and, therefore, more mainstream—in the near future.—JON L. JACOBI



THE LED BACKLIGHT SHOULD PRODUCE VIBRANT COLORS WHILE SAVING ENERGY.

the 15-inch MacBook Pro. Apple says that the LED backlight produces vibrant colors while saving energy. According to Apple, the LED backlight also reaches full brightness immediately after being turned on, as opposed to other backlights that take a little while to brighten up.

Does it have a mini-keyboard?

Nope, it's a full-size MacBook-style keyboard, complete with square black key caps. The keyboard is backlit, similar to those on the MacBook Pros, with an ambient light sensor that automatically adjusts keyboard illumination. Like the latest generation of MacBooks, the MacBook Air does not have an embedded numeric keypad.

How about the trackpad?

The trackpad is actually more capable than those on the MacBook and the MacBook Pro: it can recognize multi-touch gestures, much like those you use on the iPhone or iPod touch. Using one, two, or three fingers and a combination of tapping, swiping, pinching, and other gestures, you can move a window, pan around a photo, rotate a photo, scroll between photos, and zoom in on a photo. You can configure these gestures in the Keyboard & Mouse preference pane, where you can also view instructional videos on how to use them. To accommodate all this gestur-

ing, the trackpad on the MacBook Air is larger than those on the MacBook or MacBook Pro.

What kind of storage does it have?

The MacBook Air comes with a 1.8-inch, 80GB, 4,200-rpm Parallel ATA hard drive. But users can upgrade to a 64GB solid-state drive (SSD). Although the 64GB drive provides less total storage, the SSD technology should be faster; since we'd expect the MacBook Air's stock drive to be a bit poky, the speed difference could be notable. An SSD should also be more durable. With no moving parts, SSDs are silent and shock resistant, and use less power than traditional hard drives. (See "Solid-State Drives" for more details on that technology.)

That sounds pretty cool. Why didn't Apple just use SSD as the standard?

High-capacity SSDs are new, and as such are very expensive right now. The upgrade will run you a cool \$999 from Apple, so you'll pay a high price to be on the cutting edge.

What kind of processing power can I expect?

The MacBook Air's processors aren't as speedy as the ones on the MacBook Pros



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or even the current MacBooks. In the base configuration, the MacBook Air is powered by an Intel Core 2 Duo processor running at 1.6GHz; you can order a model containing a 1.8GHz processor for an additional \$300. Each of these processors includes 4MB of shared L2 cache running at full processor speed, and each connects to the 800MHz system bus.

It comes with 2GB of RAM, but I like to max out my systems—is there a build-to-order option for more RAM?

The fact that the MacBook Air includes 2GB of RAM standard is both the good news and the bad news—good in that it's twice as much as you'll find in many other Mac models for the base price; bad in that the RAM is (as Apple puts it) "onboard." That means it's probably attached to the motherboard rather than in normal slots—so you can't upgrade it.

How long will the battery last on a single charge?

Apple says that you can get up to five hours of battery life from normal use, with Wi-Fi turned on, but your results may vary.

If I'm going on a long flight, can I bring an extra battery like I do with my current Mac laptop?

No. Like the iPhone's, the MacBook Air's battery is not user-replaceable. And as with the iPhone, if the battery needs replacing, you'll need to send your laptop to Apple (and pay \$129 if it's out of warranty).

So what are my other options?

At this point, all you can do is buy the \$49 Apple MagSafe Airline Adapter and hope that your seat has a power plug next to it (check out SeatGuru at www.seatguru.com before booking your next flight to find out which planes and seats offer power). It's possible that companies may eventually create external batteries that use the MacBook Air's MagSafe power connector, but Apple has yet to license that port to third parties, so we just don't know.

Can I use my current MagSafe adapter?

Yes, but only if you let the MacBook Air's left side hang over the edge of your desk. (The plug sticks out too far.) The new adapter has a different tip—its right-angled

shape is designed to nestle snugly against the MacBook Air's side.

Since it has an infrared port on the front, that means it comes with an Apple Remote, right?

Nope. Unlike all the other MacBooks, the MacBook Air doesn't include a remote in the box. You can buy one from Apple for \$19.

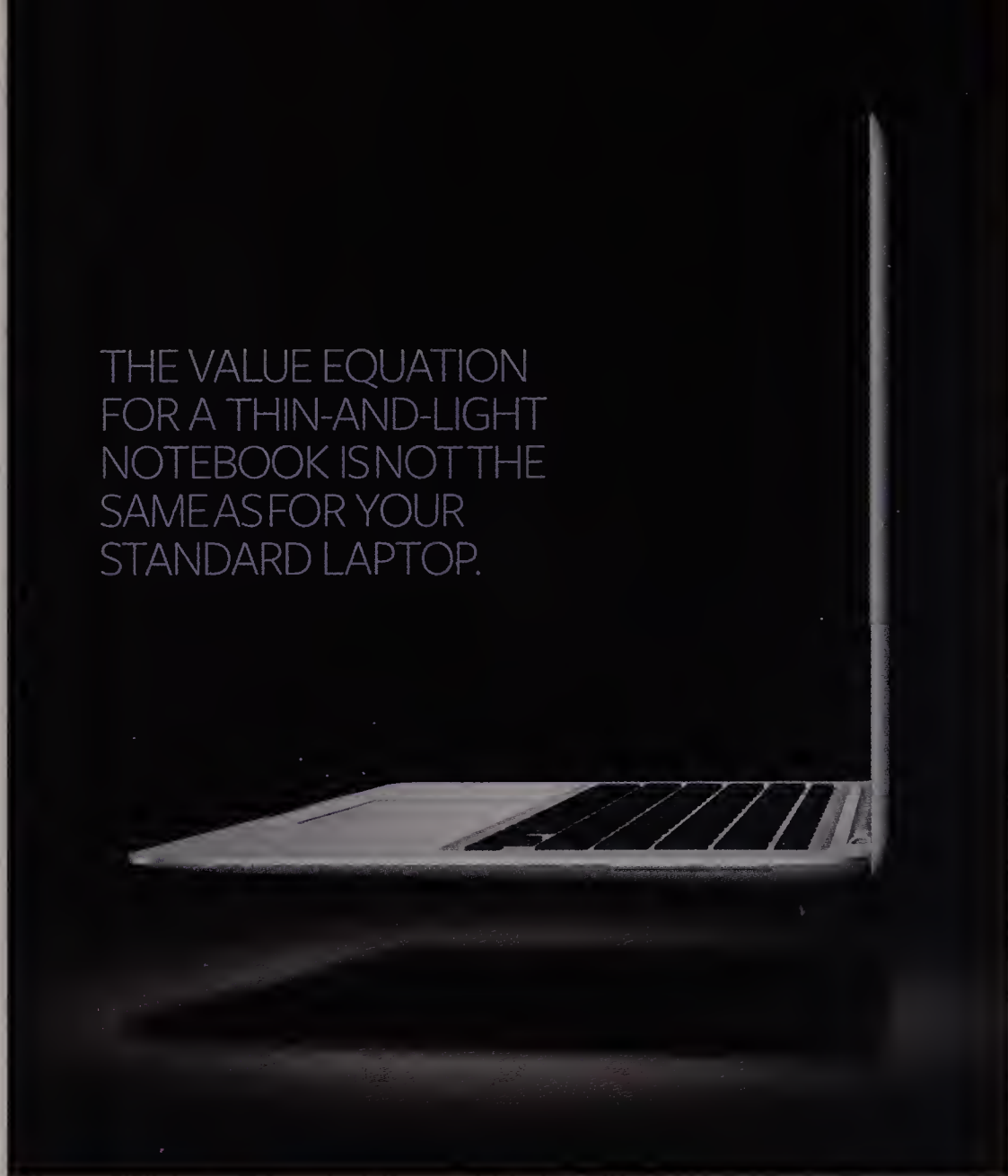
How much does the MacBook Air cost?

The base 1.6GHz model costs \$1,799, \$700 more than the base-model MacBook, and \$200 less than the 2.2GHz 15-inch MacBook Pro. You can order an ultimate MacBook Air for \$3,098—almost \$300 more than the 2.8GHz eight-core Mac Pro. Most of that extra cost comes from the hard-drive option; see "Solid-State Drives" for more on that.

Why is it more expensive than a MacBook if I'm getting less?

It takes a lot of work (and a lot of specialized tiny components) to fit an entire computer in a tiny enclosed space. Bigger components are cheaper than smaller ones. As a result, thin-and-light notebooks

THE VALUE EQUATION
FOR A THIN-AND-LIGHT
NOTEBOOK IS NOT THE
SAME AS FOR YOUR
STANDARD LAPTOP.



generally cost more than their larger cousins. The value equation for a thin-and-light notebook is not the same as for your standard laptop: the features you're paying for are not processor speed or storage size, but rather weight and volume. If low weight and an ultraslim profile are not of primary importance to you in a laptop, the MacBook Air is not for you.

Who will buy it?

Unlike the MacBook and MacBook Pro, the MacBook Air isn't designed as a general-purpose computer. Many people will find its lack of connectivity options, an optical drive, a replaceable battery, and upgradable RAM unacceptable. But it could be attractive for business travelers who care about portability most of all—who are willing to sacrifice features to save weight and bulk. If you carry a laptop everywhere you go, but you don't need all the power and ports of a full-size laptop, the MacBook Air may be worthy of serious consideration. For the definitive answer, you'll have to wait for our review. ✕

Senior Editors **Peter Cohen** and **Dan Frakes**, Senior News Editor **Jonathan Seff**, and Editorial Director **Jason Snell** contributed to this story.

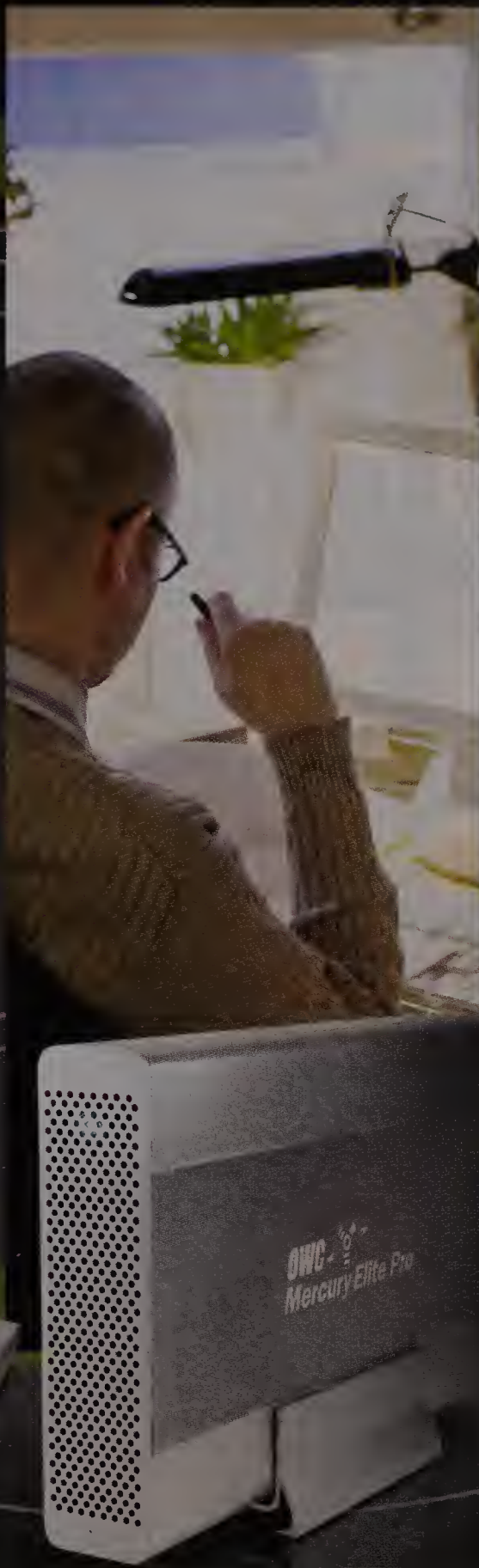


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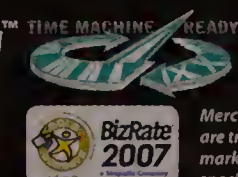
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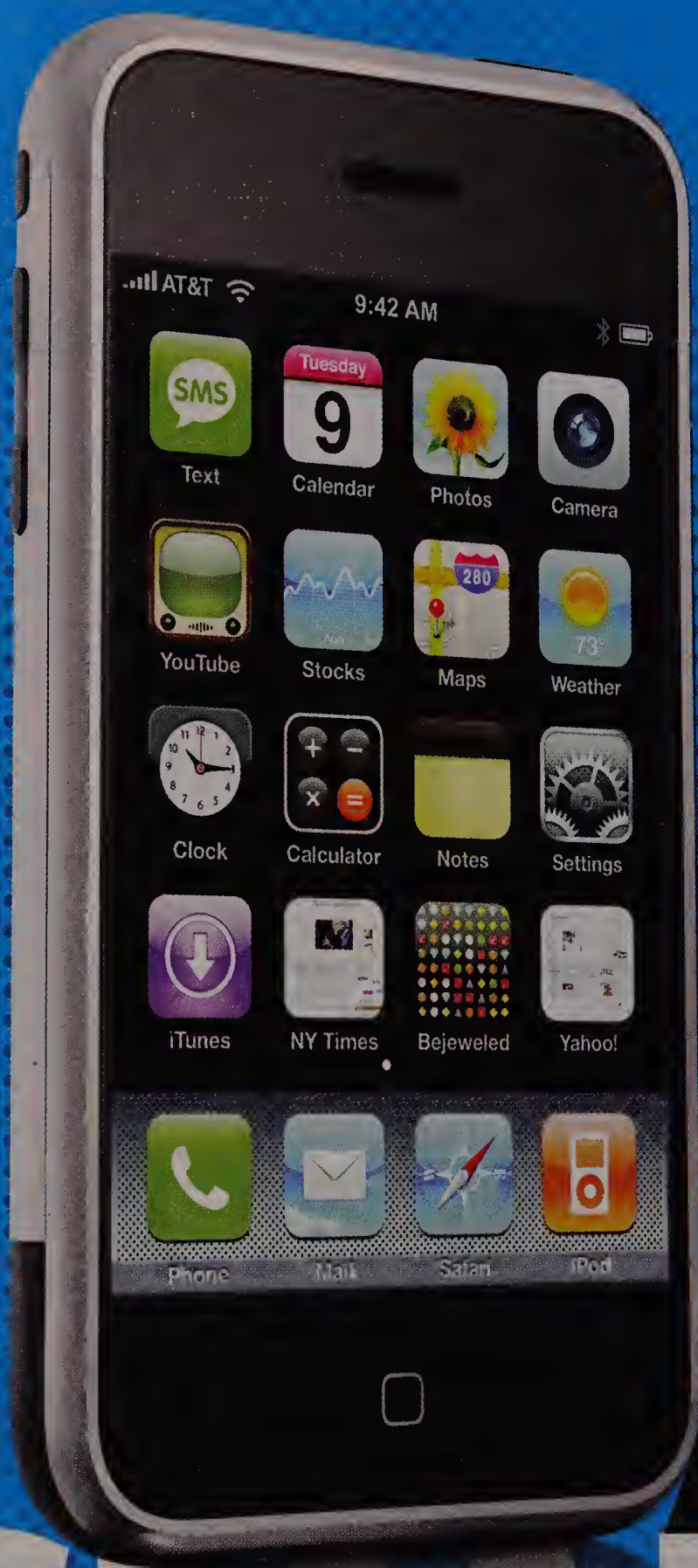
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As well designed as the iPhone is, fans and critics haven't been shy about pointing out the device's limitations. Two of the most commonly heard complaints involved the lack of GPS and the limited options for customizing the iPhone's features. At January's Macworld Expo, Apple tried to answer some of these criticisms with the iPhone 1.1.3 software update (which is free for all iPhone users in the United States, the United Kingdom, France, and Germany). The update includes a GPS-like feature that triangulates your current location. It also gives you the freedom to edit your icons, lets you place bookmarks for favorite Web sites on the Home screen for easy access, expands the phone's SMS tools, adds new features for music and video playback, and more. While some of the iPhone's new features are obvious, others require a bit more digging. I'll show you where to look, and help you unlock your iPhone's new potential.

SMARTER iPHONE

BY DAN MOREN

Photography by Peter Belanger

APPLE'S PHONE GAINS SLICK NEW FEATURES

Map Your Path

The Maps tool is arguably one of the iPhone's most impressive and most useful features. It's also the tool that received the most significant upgrade in version 1.1.3—gaining not just new powers, but also a simpler, more elegant interface.

Find Yourself Although the iPhone still doesn't offer GPS integration, it can now approximate your position in the Maps program via some clever software work on the part of Google and Skyhook Wireless (www.skyhookwireless.com). The two companies use information from your iPhone's network signal to pin down your location. Google uses data collected by the cell phone towers in your area to triangulate your location, while

Change Your Location The view menu also includes a new Drop Pin button. If you've ever disagreed with Google Maps' interpretation of where a particular location is, you'll appreciate this new feature. When you tap on the button, a purple pushpin appears on the map; you can then drag and drop it to any location and use it as an arbitrary starting or ending point for directions, or add it to your Maps bookmarks. (If you've already placed a pin on your map, the button changes to Replace Pin.)

Clip and Save

For the first time since its release, the iPhone lets you add icons to your Home screen without having to hack the device.

Tap and hold on any icon on the Home screen, and all the icons will start to shimmy and shake. This indicates that you're in the customization mode. You can then drag and drop any of the icons to wherever you want on the Home screen; you can even move icons on and off the dock at the bottom of the screen—though you're limited to just four applications there.

Dragging an icon to the edge of the screen will move you to the next page of icons. Pages are denoted by small dots at the bottom of the screen, just as in the Safari and Weather programs. When you're done rearranging the icons, just tap on the Home button, and the jiggling icons will settle down again.

While the icons are dancing, you'll also notice that your Web Clips acquire a white X badge reminiscent of Dashboard widgets. Tapping on the X will delete that Web Clip from your Home screen. You can't remove non-Web Clip icons, so if you don't like having Stocks on the front

THE IPHONE'S LOCATION FEATURE WORKS WELL, THOUGH I GOT MORE-PRECISE RESULTS WHEN ON A WI-FI NETWORK.

Skyhook uses a database of over 23 million Wi-Fi hotspots. Precision varies: Skyhook claims accuracy to within 20 meters; Google can only promise accuracy to within about 1,000 meters.

When you tap on the crosshairs icon, the iPhone thinks for a few moments and then places a blue circle on the map showing your general location. In my brief tests, the location feature worked well, though I got more-precise results when on a Wi-Fi network than I did using the cell phone system.

Get a New View Apple trimmed the number of buttons that appear along the bottom of the Maps screen. You'll now find Search and Directions buttons, the crosshairs icon for the location feature, and an eye icon, which gives you access to additional map options.

When you tap on the eye icon, the bottom of the map peels upward, revealing six buttons. You'll find familiar options for changing the map view, including Map, Satellite, and List, as well as a new Hybrid option, which combines satellite images with a map overlay. Although it works the same way as before, you'll find the List view a bit more polished. It's now easier to read the individual instructions as you step through them. You'll also find the Show Traffic or Hide Traffic button for viewing live traffic data.

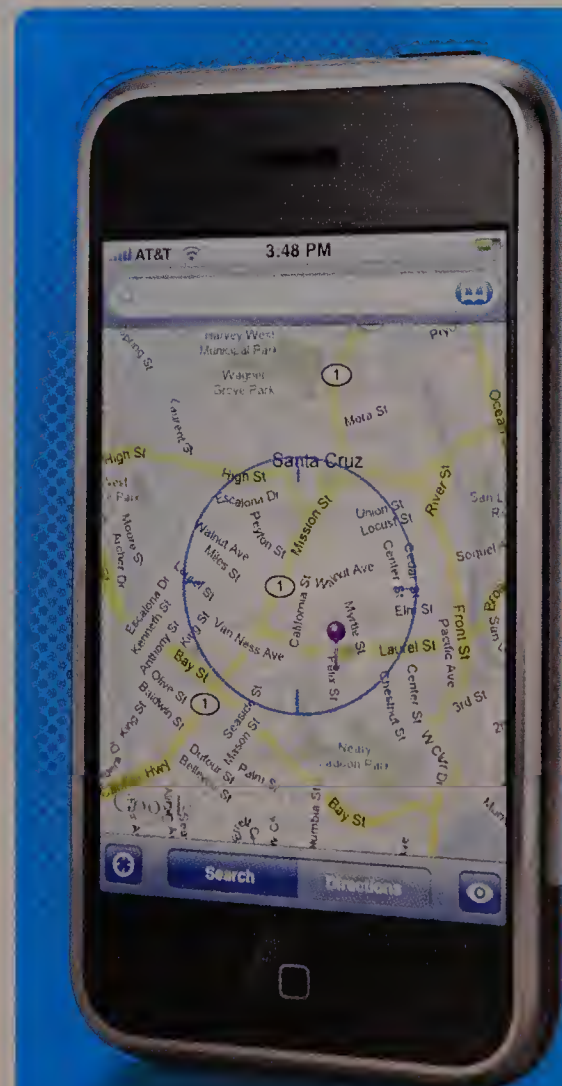
But there's a catch: the only icons you can add at present are Web Clips, which are bookmarks to Web content.

To create a Web Clip, navigate to the page you want in Safari and tap on the plus-sign (+) button (it's been moved to the bottom toolbar). You'll see a new Add To Home Screen option. Tapping on that button will bring up a dialog box where you can enter a name for the Web Clip (choose something short). Tap on Add, and you'll be taken back to the Home screen, where your new Web Clip will appear in the first available spot. By default the iPhone uses a thumbnail image of the clipped Web page as the icon. However, Web sites can generate a custom icon for iPhones to use. For instructions, see the article on the iPhone Dev Center (macworld.com/3336).

To use a Web Clip you've created, just tap on its icon. It will automatically launch Safari and take you to that site.

Get Organized

With this newfound ability to add icons, you may wonder what happens when you exceed the three open spaces on the iPhone's Home screen. Well, thanks to the new Home screen management system, not only can you now have up to nine pages of icons, but you can also rearrange the existing icons to your heart's content.



Find Your Location The iPhone's new location feature can display your current location in any map view. You can then place a pin on the map to mark a starting point for directions.

page, your only recourse is to move it onto another page.

Should you decide that you want to restore your Home screen to its pristine, out-of-the-box condition, you can reset it by going to Settings: General: Reset: Reset Home Screen Layout. Resetting your Home screen doesn't remove any Web Clips you've created.

Chat Up Your Friends

Got more than one friend? Don't love having to type exactly the same text message to each of them? The iPhone now lets you send an SMS message to multiple parties. Just fire up a text message as usual and tap on the blue plus-sign button to bring up your contact list. Rinse and repeat to add subsequent contacts, just as you would in the iPhone's Mail program.

Sending a message to a group takes a little longer than sending it to just one person. Also keep in mind that each recipient counts as a separate text message in your monthly accounting. Responses will be sent only to you—not the rest of the

gang—and will show up as a separate conversation. However, the group text message will continue to be listed as well, so you can send another message to the same group of people later.

Manage Your Media

Apple also used the update as an opportunity to fine-tune the iPhone's video and audio playback controls.

More Movie Options While watching a movie, you can now jump between its chapters. Tap on the screen to bring up the video controls, and then tap on the icon that looks like a list (next to the fast-forward button). The screen will flip around and present a list of chapters, complete with thumbnails, titles, and time markers. You can also select subtitle tracks and other languages when available.

Sing Along If you've taken the time to download lyrics for songs, the iPhone will now display those lyrics. Simply tap on the song's album art to make them appear. You can even scroll through them as the song plays.

Shift to Manual Control With 1.1.3, Apple finally gives you the option of manually managing your songs and videos. You'll find the option in the Summary pane of your iPhone sync settings. As with Apple's other iPods, selecting this option gives you the flexibility to drag only the music and videos you want onto the phone from your iTunes library without creating elaborate playlists. (You'll need to update to iTunes 7.6 to access this feature.) Unfortunately, you cannot transfer files in the other direction. Also, it appears that you can manually manage your media from only one computer at a time. So you can't use this feature to merge media from multiple computers.

Tracking Smaller Changes

Although they don't have the wow factor of some of the iPhone's other new additions, several minor iPhone refinements are also worth noting. The default configuration for Gmail now uses IMAP, a feature Google added to its e-mail service last year. And you can now use gift codes when purchasing music from the iTunes Wi-Fi Music Store. The update also rolled in a couple of security fixes for Safari, and patched a hole in the Passcode Lock feature that could allow an intruder to circumvent it. ☒



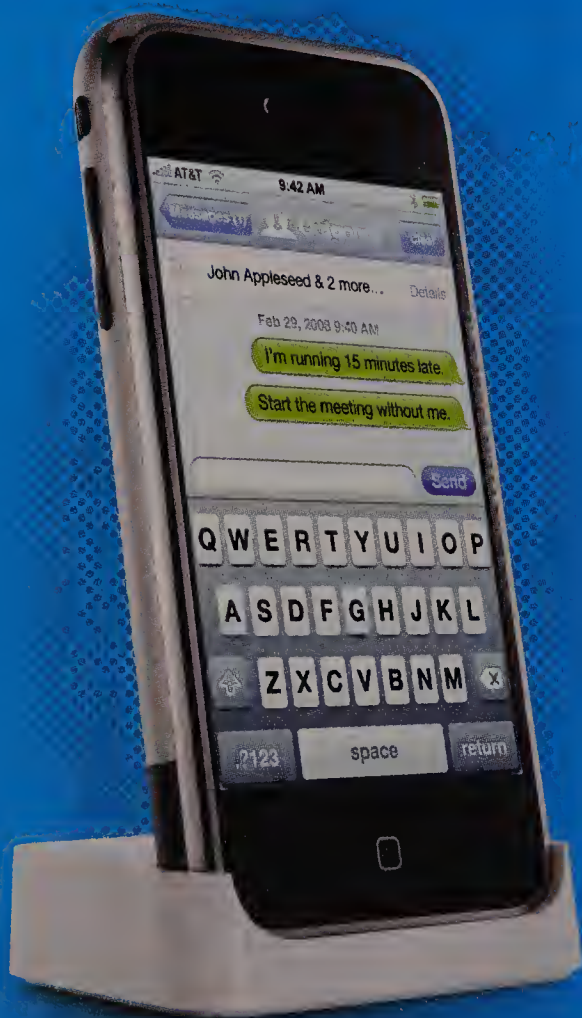
THE IPOD TOUCH GROWS UP

The iPhone wasn't the only member of the iPod family to gain shiny new features in January. Apple has also made new features available for the iPod touch. But unlike the free iPhone update, these new capabilities come at a price—current iPod touch owners will have to pay a \$20 fee.

In exchange for that, you'll get five new mobile programs: Mail, Maps, Stocks, Weather, and Notes—giving the music player almost the same capabilities as the iPhone, with the notable exception of calling and camera features.

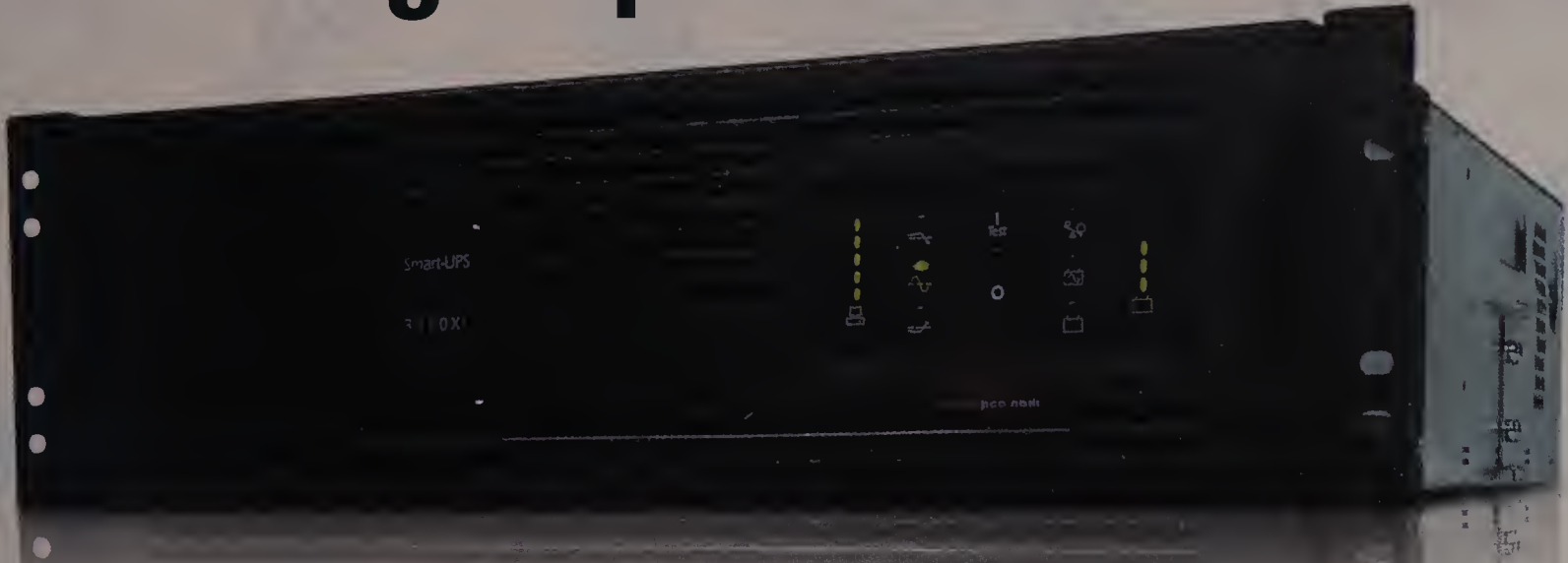
The new programs include most of the enhancements announced for the iPhone 1.1.3 update. For example, the Maps program on the iPod touch can triangulate your current location. However, the touch's implementation of that feature relies on Wi-Fi only. The iPod touch update also adds a Web Clips feature for creating custom icons on the Home screen, as well as the ability to customize the Home screen by reordering and adding icons.

To purchase the update, access the iTunes Store, and then click on the iPod Touch January Software Upgrade icon.—PHILIP MICHAELS



Group Chat The iPhone's Text program now lets you send the same SMS message to multiple people at once.

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Leopard's backup program makes it easy to rescue files thought lost forever. But is it all you need?

Better Backups WITH Time Machine

We all know we *should* back up our data, but too few of us actually do. According to a Harris Interactive poll, 35 percent of American computer users *never* back up their files. And as for those people who do, 76 percent of them only do so once a month or less. Why? I'd wager that it's not because there's nothing important on their computers, but because backing up just seems too hard.

You've probably heard the news by now that Leopard's Time Machine promises to remedy all that. No longer must you learn complex software just to keep your data safe from perils like accidental deletion, disk errors, or theft. Instead, plug in a hard drive, click on a button, and Time Machine takes care of it for you. But will Time Machine meet all your needs? And if you already have another backup system in place, should you switch—or instead use Time Machine to supplement your existing plan? I'll show you exactly what Apple's newest backup program can and can't do, as well as ways to integrate it into your backup strategy. I'll also give you some tips for setting it up and avoiding common pitfalls.

By Joe Kissell

ILLUSTRATIONS BY
HARRY CAMPBELL

Is Time Machine All You Need?

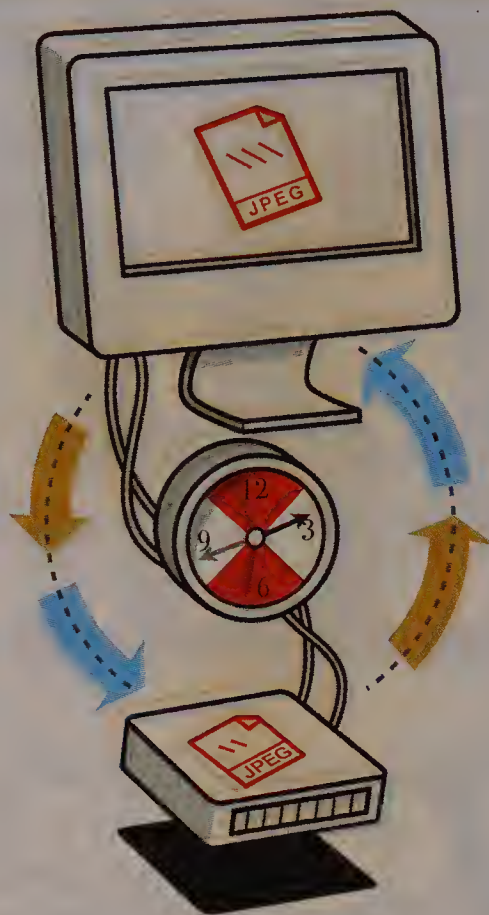
Although any backup is better than no backup at all, Time Machine may not protect your data to the extent or in the way that you need. A few significant weaknesses offset its impressive strengths.

What Time Machine Can Do for You

Time Machine copies the files on your computer to a destination you designate—an external hard drive, a second drive inside your Mac, an extra partition on your internal hard disk, a network server, or Apple's new Time Capsule device (see "Time Machine's New Best Friend"). Then, once an hour, the program runs again, updating your backup to include whatever files have changed since last time.

Effortlessly Produces Many Backups With each hourly backup, Time Machine takes what amounts to a snapshot of your entire system at that moment. If you look through the folders on your backup disk, you'll see what looks like a complete copy of all your files for each of numerous backup sessions. But to some extent that's an illusion; Time Machine copies to your backup disk only those files and folders that are different from the ones in your previous backup. Using a bit of Unix magic known as *hard links*, Time Machine can store just one copy of a file or folder but make it appear to be in several places at once. That way, your disk doesn't fill up with multiple copies of files that haven't changed.

Time Machine keeps all of the day's backups for 24 hours, but then it begins to delete older versions to save space. You can count on it to keep the first backup of any given day for an entire month. Even after a month, it preserves the first backup of each week until your disk is nearly full. Only at that point does the program begin purging files from your oldest weekly backups. The net result is that you see your files as they appeared at many points in the past, though not *all* points in the past.



Quickly Restores Files To retrieve a file or folder from your backups, click on the Time Machine icon in the Dock. Click on the up and down arrows or use the timeline to the right to zoom in on earlier views of a particular folder or file until you find the version you want (see "Travel through Time"). Click on the Restore button and your file comes back to the present.

Restores an Entire Disk Although the procedure is somewhat time-consuming, Time Machine can also return your entire disk (including OS X itself) to its state at some point in the past.

Uses a Network Volume, If You Choose You can use Time Machine to back up multiple Macs in your home or office to the same disk, as long as they're all running Leopard.

Runs Automatically or Manually If you aren't content with Time Machine's

hourly schedule, you can turn it off and run backups manually at any time.

What Time Machine Can't Do for You

When it comes to storing *archives*—copies of your files as they existed at numerous points in the past—Time Machine is unparalleled in its simplicity. But compared with other Mac backup programs, Time Machine is missing a number of features:

Doesn't Make Bootable Duplicates

Even though Time Machine backs up every file on your disk to another hard drive, you can't start up your computer from your Time Machine backup. That means if your internal hard drive is damaged or corrupted, you'll have to spend hours restoring your data before you can get back to work.

Doesn't Give You Much Control

You can tell Time Machine to ignore particular files or folders by adding them to its Do Not Back Up list. But you can't exclude files based on certain criteria (for example, all movie files over 2GB in size or all files with the extension *.dmg*). In addition, you can back up your files to only one destination at a time, and you can't opt to back up some files to one disk and others to a different one. Time Machine's hourly, daily, and weekly backup schedule is likewise fixed. You can turn backups on or off (see "Simple Controls"). You can't, however, adjust the schedule without using a command-line hack or third-party software, such as Stefan Klieme's free TimeMachineScheduler (macworld.com/3274).

Doesn't Use Optical Discs Time Machine can store its data only on a hard disk, not on CDs or DVDs.

Doesn't Use AirPort Disks If you have a hard drive attached to your AirPort Extreme Base Station—or for that matter, any network-attached storage (NAS) device *except* the Time Capsule—Time Machine won't recognize it.

Doesn't Compress Files Time Machine requires a significant amount of disk space, and although it doesn't store duplicate copies of identical files, it doesn't compress your files either. If you have tons of data and only a modest amount of storage space, Time Machine may not be for you.

Doesn't Use Encryption Anyone with physical access to your Time Machine backup disk will be able to read all your files. If you can't guarantee the security of that disk and you work with confidential files, you should think twice before using Time Machine. Files that were already encrypted, such as FileVault disk images, do remain so in your backup—which brings us to our next point.

Doesn't Work Well with FileVault Time Machine backs up FileVault-encrypted user folders only when you're logged out—and does not permit file-by-file restoration of your FileVault data using the Time Machine program. In other words, Apple expects you to restart

using your Leopard Install DVD and completely restore your disk if you want to recover even a single file. (That said, you can manually mount a Time Machine disk image and use the Finder to copy a single file if you wish.)

Doesn't Include Off-Site Protection In addition to those specific problems, Time Machine may provide you with a false sense of security. After all, someone who breaks into your office and steals your Mac will probably pick up the hard drive sitting next to it, too. Likewise, disasters like fires and floods won't spare your backup drive. If you're really serious about protecting important data, it's best to include some sort of off-site backup—for example, using an online backup service or storing a bootable duplicate at your sister's house—in your plan.

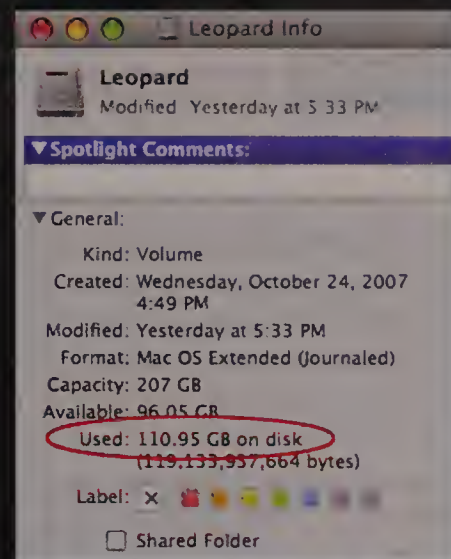
Time Machine and You

Given Time Machine's talents and drawbacks, most Leopard users fall into one of three categories: those people for whom Time Machine can serve as a *sole* backup, those who should use Time Machine along with other backup methods, and those who should avoid Time Machine altogether. Here's how to figure out what you need.

Think twice before using Time Machine to back up confidential data if you can't secure your drive.



Travel through Time Click on the up and down arrows or use the timeline on the right to zoom back in time to an earlier version of a folder.



Check Your Drive To see how much hard-drive space you're using, select your drive in the Finder and look at the Used figure in the Get Info window.

Think Big

Time Machine normally stores your backups on an external hard drive, or on a second internal drive on a Mac that has more than one. (Although you can also use an extra partition on your main drive, it's not a good idea—lose that drive and you lose all your backups.) So if you have a spare drive (or a drive with enough free space), you may be able to use it with Time Machine. But how much free space is enough?

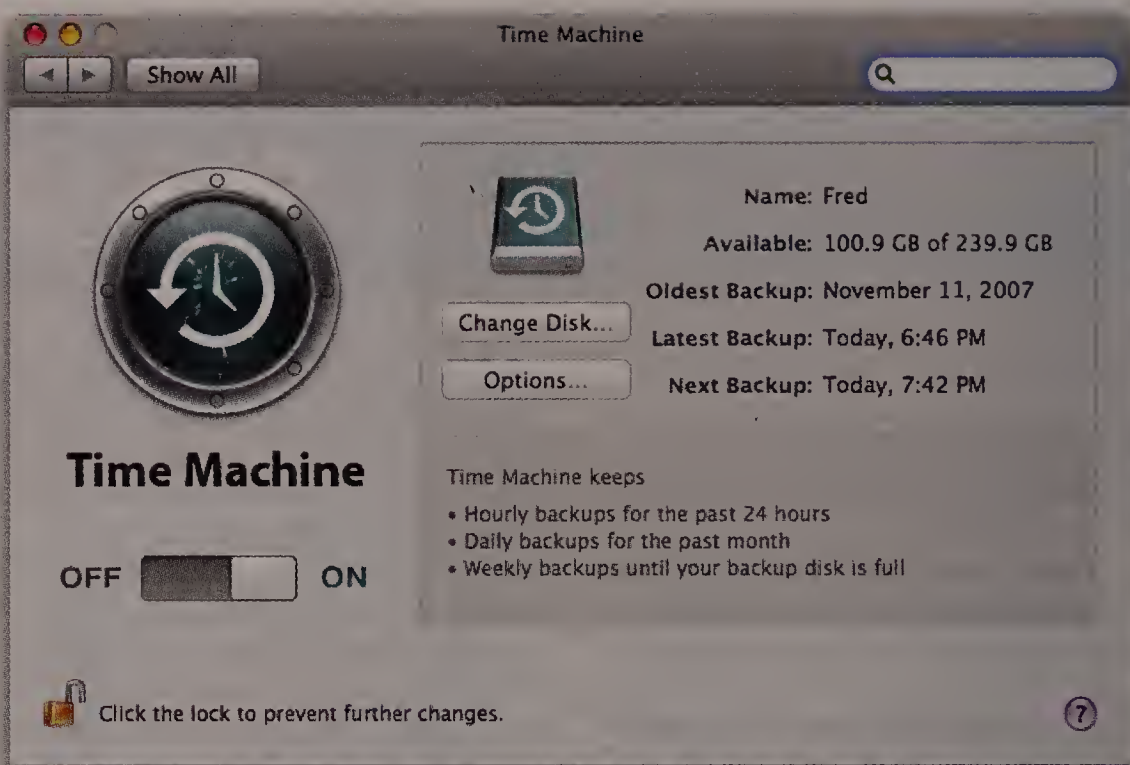
Begin by finding out how much space your data currently occupies on your startup disk. To do this, select the disk in the sidebar of a Finder window and choose File: Get Info. In the window that appears, look in the General section next to the word Used to find out how much space your data is using. Now, multiply that number by 1.2; the result is the *minimum* amount of disk space Time Machine can work with. (That's because Time Machine needs space for all your files plus some extra room to enable it to store new data and multiple copies of files that change.) However, more space is always better, because it enables Time Machine to retain backups that go further into the past. I suggest having a backup disk with at least 1.5 times as much free space as the amount occupied on your startup volume, and more if possible.

Time Machine works best when it has an entire disk, or at least a partition on a disk, all to itself. So if you have a suitably large drive that's completely blank or that you can erase, that's ideal. You can use Disk Utility (/Applications/Utilities) to erase a disk, or to divide an existing disk into multiple partitions—one of which you'll devote to Time Machine.

Use Time Machine Only If you haven't been backing up your data at all, clearly Time Machine is a lot better than your previous plan. However, I recommend using Time Machine alone in only a few circumstances: if you have more than one external hard drive on which Time Machine can store its backups and you can keep one of them safely offsite at all times; if you don't mind the thought of spending several hours restoring a backup in the event of serious problems; or if you have two or more Macs running Leopard, so you can quickly switch to another computer in the event that your main hard drive fails.

Use Time Machine and Then Some In many cases, Time Machine will do the trick if you add just one element. For instance, if you also want a bootable duplicate of your hard disk, you can use any of numerous programs to create one separately. (For instructions, see "Easy Mac Backups" at macworld.com/2596.) You must store the duplicate on its own drive or partition in order for it to be bootable. If your external drive is large enough, you can use Disk Utility (in /Applications/Utilities) to create an extra partition just for the bootable duplicate.

If you have only a single external hard drive but want to store an extra copy of your data offsite, one possibility is to supplement your hard disk-based Time Machine backups with online



Simple Controls The Time Machine preference pane has just a handful of controls, including a cartoonishly large on/off slider.

Skip Time Machine Avoid Time Machine altogether if you don't have, and can't obtain, a sufficiently large hard drive (see "Think Big"). Likewise, pass on it if you want to back up to optical media (recordable CDs or DVDs). If security concerns require that your backups be encrypted, Time Machine is not for you.

What If You Already Have a System? Even if you fall into one of the categories of people who'd benefit from using Time Machine, there's another question to consider. What if you already, prior to

If you have been using another program to do essentially the same thing that Time Machine does—store archives of your files on an external hard disk—then you should indeed consider switching to Time Machine for that task. Time Machine makes restoring files easier than any other backup program. It also requires virtually no attention or intervention while it runs, and it intelligently recycles space on your disk by deleting the oldest backups. (And don't forget that it also comes free with your operating system.)

However, in some circumstances, the path of least resistance may be to stick with your existing backup scheme. For instance, that's probably the case if you use a client-server backup system, such as EMC Insignia's \$129 Retrospect Desktop 6.1 (★★★★; macworld.com/2497), to store your backups on a network server that's unsuitable for Time Machine. Likewise, if you back up one or more computers to an AirPort Disk or other NAS device, Time Machine's incompatibility with these may prove to be a killer, unless you're willing to invest in a Time Capsule.

It might also be easiest to stick with your current system if your job requires you to preserve copies of every backup you make, disk space notwithstanding, or if the cost of obtaining the additional disk space needed for Time Machine is prohibitive.

Without a doubt, adding Time Machine to your backup strategy makes sense if you've only been making bootable duplicates of your drive.

backups. (See "Easy Online Backups" at macworld.com/3300 for details.)

If you use FileVault and want to be able to restore individual files from your user's folder more easily, you can use Prosoft Engineering's \$99 Data Backup 3 (www.prosofteng.com), Memeo's \$30 LifeAgent (★★★★; macworld.com/3275), Code 42's CrashPlan Pro (\$60 plus monthly online backup costs; www.crashplan.com), or other software that provides file-by-file encryption to back up those files safely while you're logged in.

installing Leopard, had a perfectly good backup system in place? Should you ditch it and use Time Machine instead? Keep the existing system and add Time Machine? Or combine the best elements of each?

Without a doubt, adding Time Machine to your backup strategy makes sense if you've only been making bootable duplicates of your drive. As useful as those are, by themselves they provide no way to recover multiple older versions of any given file, or files deleted before you made your most recent backup.

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Time Machine Tips and Troubleshooting

Some people will be able to set up and turn on Time Machine with a single click. But you may need to do some manual configuration to get it to work the way you want. You should also be aware of some quirks in Time Machine's operation, particularly when restoring data.

Get Set Up Right

When you first plug in a hard drive that's suitably partitioned and formatted, Time Machine displays an alert asking if you want to use that disk for backups (see "One-Click Backup"). Click on Use As Backup Disk—that's the one-click setup—to turn on Time Machine and set it to use that hard drive as its destination.

If no alert appears, or if you want to choose a network volume as your destination, open the Time Machine preference pane and click on the Choose Backup Disk button (which switches to Change Disk after your initial selection). Select the volume you want to use and click on Use For Backup. Follow the same procedure if you want to use more than one backup disk and switch between them; after connecting the new drive, select it in the Change Disk dialog box.

Exclude Files

If your backup disk is too small to hold all the files on your startup disk, you can tell Time Machine not to back up some of them. To do this, click on the Options button in the Time Machine preference pane. Then either drag the items you want to exclude into the Do Not Back Up list from the Finder, or click on the plus-sign (+) button, navigate to a file or folder, and click on Exclude.



Here are some suggestions:

System Files The files that make up OS X itself—including programs such as Safari, Preview, and iCal—take up nearly 10GB. To exclude all of them, add your System folder to the Do Not Back Up list. Click on Exclude All System Files when prompted. Note that excluding these files means Time Machine will be unable to restore your entire disk—but if you maintain a separate bootable duplicate, that shouldn't be a problem.

Large Media Files Video files and, to a lesser extent, audio files can take up an enormous amount of space. Consider excluding folders containing such media files if you can recover them in some other way.

Virtual Machine

Disk Images If you use the \$80 Parallels Desktop 3 (★★★★; macworld.com/2930) or the \$80 VMware Fusion 1 (★★★★; macworld.com/3116) to run Windows on your Mac, you may have one

or more large disk-image files that contain an entire Windows installation. These files change every time you do anything in Windows, so you should back them up separately. You can find Parallels disk images in your *user folder/Documents/Parallels/virtual machine name* (look for files with the extension *.hdd*). For Fusion, look in your *user folder/Documents/Virtual Machines* (Fusion disk images use the extension *.vmwarevm*).

Installers Downloaded software, typically distributed in disk-image files, can chew up disk space quickly. Exclude your Downloads folder to give Time Machine more breathing room.

Aperture Files At press time, Apple reported conflicts between its photo-management program and Time Machine. The company recommends excluding your Aperture library.

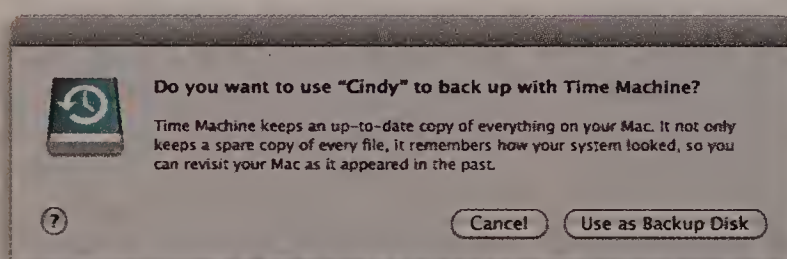
Control Ons and Offs

Time Machine ordinarily runs in the background, updating your backup disk once an hour. If you want to disable automatic operation temporarily (for example, to reduce disk noise or improve the performance of other disk-intensive tasks), click on the on/off slider in the Time Machine preference pane. Whether that slider is in the on or off position, you can force Time Machine to do an immediate backup by right-clicking (or control-clicking) on the Time Machine icon in the Dock and choosing Back Up Now from the contextual menu.

Note that you do not need to turn off Time Machine before disconnecting or unmounting its destination disk.

Fix Unrecognized Disks

If you attach an external USB or FireWire drive and its volumes do not show up in



One-Click Backup When you attach an external hard drive to a Mac running Leopard, you'll see this alert, which lets you set up and turn on Time Machine with one click.

Time Machine, or backups proceed part-way and then fail, one likely reason is that the drive was originally configured for Windows and, for one reason or another, Time Machine can't reformat the drive automatically. Ordinarily, Windows-formatted drives work fine in OS X, but Time Machine is pickier—it requires that destination volumes be formatted as Mac OS Extended (Journaled) (see “Volume Format”). In addition, the partition map scheme must support the format and size you want to use for your backup volumes.

The partition map scheme describes how the drive stores its volumes. Drives originally set up for use on Windows usually use the Master Boot Record (MBR) scheme, as opposed to the Apple Partition Map (APM) scheme, the default for PowerPC-based Macs, or the GUID Partition Table (GPT) scheme, the default for Intel Macs.

Ordinarily, Windows-formatted drives work fine in OS X, but Time Machine is pickier.

Although OS X supports MBR, there's a catch: Mac OS Extended volumes can be no larger than 512GB on a drive partitioned with the MBR scheme. So if you have, say, a 750GB or 1TB drive, you must repartition it to use the GPT or APM scheme before it can work with Time Machine.

Disk Utility can identify your drive's partition map scheme and format and change them if they're incorrect. Open Disk Utility and select your external drive in the list on the left. In the lower right corner of the window, you should see the words Partition Map Scheme (see “The Right Partition Scheme”). If it says Master Boot Record and you have a backup volume larger than 512GB, you must repartition the drive. To check on the format of any volume on the drive, select that volume in the list on the left. At the bottom of the window, next to Format, you should see Mac OS Extended (Journaled) or Mac OS Extended (Case-Sensitive, Journaled). If you see anything else, you must reformat that volume.

First, a warning: repartitioning erases all the data on your drive; reformatting erases all the data on the volumes you're changing. To repartition your drive, select its icon in the list and click on the Partition tab. Then choose the number of par-

titions you want (even if that number is one) from the Volume Scheme pop-up menu. Select each partition you just created, type a name, and make sure the Format pop-up menu says Mac OS Extended (Journaled). Then click on Options. In the dialog box that appears, select GUID Partition Table if you'll be using the drive only with Intel Macs; choose Apple Partition Map if you'll be using it only with PowerPC Macs or with both processor types. Click on OK. Finally, click on Apply. In the confirmation dialog box that appears, click on Partition.

If your drive's partition is correct but the format of one or more of the volumes is not, select the volume you want to reformat in the list. Then, in the Erase tab, choose Mac OS Extended (Journaled) from the Volume Format pop-up menu and click on Erase. To con-

firm your choice, click on Erase in the dialog box that appears.

Use a Network Volume

Besides using a Time Capsule device or an external USB or FireWire drive, Time Machine can back up to a network volume. However, Apple has placed a num-

ber of restrictions on Time Machine's network support, most of which involve the computer that's sharing the hard disk you'll select as your backup destination.

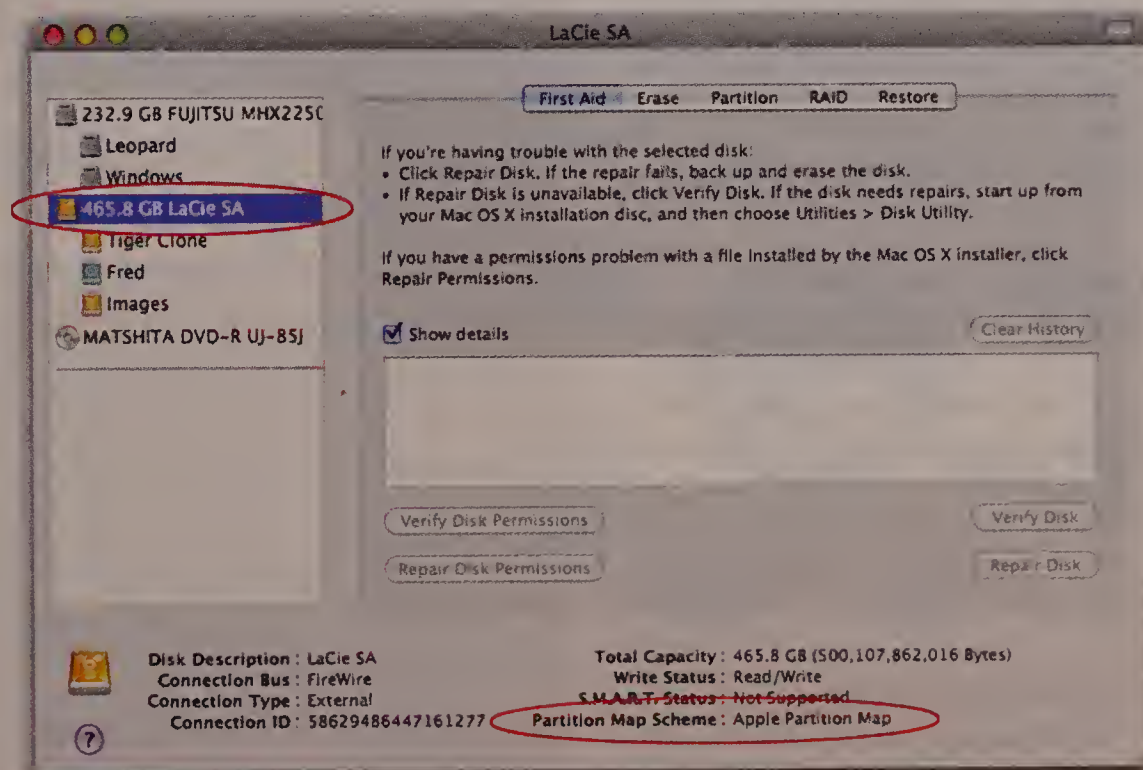
For starters, you have to partition the drive in the APM or GPT scheme. You must format the volume as Mac OS Extended (Journaled). The computer to which you attach the drive must be running Leopard (client or server). And the disk must be shared using AFP, the default protocol for Personal File Sharing. Set this up by clicking on Options after selecting File Sharing in the Sharing preference pane.

Make sure that the disk is mounted in the Finder on the Mac you want to back up. To check on this, click on a computer name in the sidebar of a Finder window, and look for a message at the top of the window that says Connected As: *your user name*. If it says Connected As: Guest, click on Connect As and enter the user name and password for the shared volume. Then double-click on the folder representing the disk you want to use for backups to ensure that it's mounted.

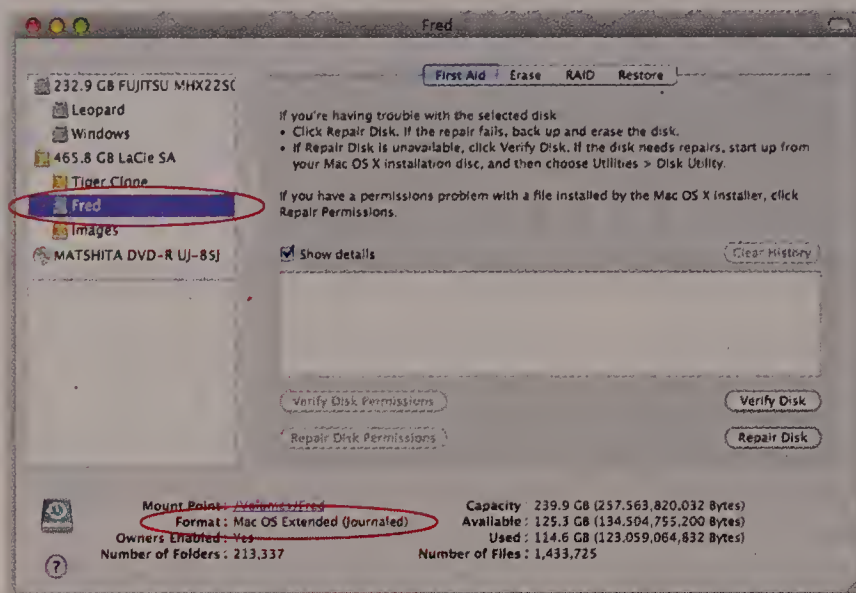
Finally, to tell Time Machine to use the network volume, click on the Change Disk (or Choose Backup Disk) button in the Time Machine preference pane, select the network volume in the list, and click on Use For Backup.

Restore Your Files

You've just realized that an important file is missing. No problem; Time



The Right Partition Scheme Select a hard drive's icon in Disk Utility to see its partition map scheme, which applies to the entire drive.



Volume Format Each volume on a drive can have its own format, but only Mac OS Extended (Journaled) works with Time Machine.

Machine backed it up. Here's how to restore it. First go to the Finder window where the file used to be. Then click on the Time Machine icon in the Dock. The frontmost window slides to the center of the screen, the background displays an animated 3-D star field, and additional copies of the window recede into the background.

On this screen, click on the back arrow to jump to the most recent backup of that particular folder that was different from the current one. Click on it again to jump to the next change, and so on. Or click on one of the hash lines along the right side of the window, each of which represents a single backup session. When you locate the file or folder you want to restore, click on it once to select it, and then click on the Restore button in the lower right corner of the screen. Time Machine copies the file to the same location in the "present," returning you to that folder in the Finder.

Restore Files from Special Apple Programs

Apple's Mail, Address Book, and iPhoto '08 include enhanced support for Time Machine. That means you can go back in time to find a particular e-mail message, contact, or photograph without having to worry about where the underlying file is actually stored.

The Right Hard Drive

Looking to buy an external drive? See page 40 for our review of 750GB and 1TB models.

To search for an item in Mail, Address Book, or iPhoto, first navigate to a view, where the item would normally appear—for example, type a name or keyword into the Search box, or select a particular mailbox or album. Then click on the Time Machine icon in the Dock and navigate to the point in time

where the item reappears. Click on Restore to bring it back to the present, or, in Address Book and iPhoto, click on Restore All to copy all your contacts or photos from the time of that backup to the present.

Note that iPhoto places restored photos in a new, untitled album, while Mail places restored messages, notes, and to-do items in a new mailbox called Recovered Items, inside a Time Machine mailbox in the On My Mac portion of the mailbox list.

Restore a Whole Volume

The 3D Time Machine interface is perfect for finding and restoring individual items, but not for recovering an entire disk. If you need to restore your whole disk from a Time Machine backup, follow these steps.

First, start up from your Leopard Install DVD (hold down the C key as you restart your Mac). In the screen that appears after the language selection screen, choose Utilities: Restore System From Backup. Click on Continue, select your Time Machine backup disk, and click on Continue again. Then select the particular backup you want to restore (most likely the one at the top of the list) and click on Continue. Select your internal disk, click on Restore, and confirm your choice.

Note that Time Machine assumes that the drive to which you're restoring is blank. If it isn't, you can erase it prior to restoring your Time Machine backup by choosing Utilities: Disk Utility and clicking on the Erase Disk button on the Erase tab. ✕

Joe Kissell is the senior editor of TidBits (www.tidbits.com) and the author of the e-book *Take Control of Mac OS X Backups* (TidBits Publishing, 2007; www.takecontrolbooks.com).

Time Machine's New Best Friend

If you're looking to make Time Machine work even more invisibly, skip hooking up an external hard drive and instead try the Time Capsule,

Apple's new companion hardware for Time Machine (www.apple.com/timecapsule). This little white device (\$299 for 500GB or \$499 for 1TB) combines an 802.11n network access point (equivalent to an AirPort Extreme Base Station) and a sizable hard-disk drive, which means that you can back up all the Macs in the house wirelessly. The Time Capsule is particularly useful for laptops, as it can back them up wherever they are as long as they're connected to the network. And because the device is preconfigured to work with Time Machine, the only setup required to get your backups going is to select the Time Capsule as the destination in the Time Machine preference pane.

Beyond acting as a backup device, the Time Capsule allows you to share USB printers and devices including your iPod or Apple TV. Windows computers and Macs running OS X 10.4 (Tiger) can access the Time Capsule as a wireless hard drive. The device features dual-band antennas for 2.4GHz or 5GHz frequencies. It has one USB 2.0, one Gigabit Ethernet, and three Gigabit LAN ports. Time Machine offers Wi-Fi Protected Access (WPA and WPA-2), 128-bit WEP encryption, and a built-in NAT firewall that supports NAT-PMP for Leopard's Back To My Mac feature.—MACWORLD STAFF



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Spice Up Your Slides

Take advantage of new animation tricks in Keynote '08 **BY TOM NEGRINO**

Tired of rehashing the same static presentations? Consider adding movement. Used judiciously, animations can add power and pizzazz to your presentations, and they can often illustrate a point better than words alone. Keynote has long been able to move pictures and text on slides (using *object builds*), but Keynote '08 (apple.com/keynote; macworld.com/3043), part of Apple's \$79 iWork suite, ups the ante. I'll show you how to use Keynote's new animation tools to take your presentations to the next level—by zipping an object across a slide, adding cool photo effects, and more. (To learn how I used the tools to create a complex animation, see “Bringing It All Together.”)

Make Your Message Move

Apple has expanded Keynote's repertoire with several new *action builds*, including Move, Rotate, Scale, and Opacity. The most significant is the Move action, also known as an A to B animation (a feature that Microsoft PowerPoint 2004 lacks). Using this effect, you can make objects travel along a path you define.

Start the Animation First select an object, and then head to the Build Inspector's Action pane (select View: Show Inspector, click on the yellow diamond icon at the top of the palette, and click on Action). Choose Move from the Effect pop-up menu. A straight red line with diamonds on each end will appear. This line connects the original object to a translucent copy that represents the animation's finishing position. You can drag

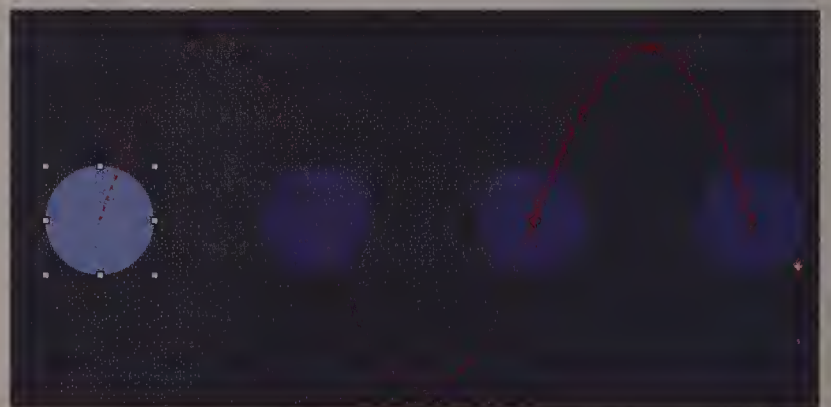


either diamond to change where the object starts or finishes.

If you prefer a curved path to a straight one, click on the Curve button (its icon is a little arch) in the Build Inspector (under Path). The red line will change to a curve with a control point in its middle. If you click on this point, Bézier handles appear, allowing you to change the degree of curvature; dragging the point stretches the curve like a rubber band. To create a more complex curve, option-click anywhere on the path to add a new control point.

Add On If you plan to move your animation along multiple lines or curves, you'll need to insert additional paths. At the end of your current path, you should see a diamond with a white plus sign (+); click on the plus sign, and a new path will appear. Continue adding and modifying paths until you get the animation you want. As you create new paths, previous ones appear as dotted red lines, so you can view the entire course of an animation (see “Animation on a Path”).

You can also apply more than one action build at a time. For instance, you can make an object grow or shrink as it moves across a slide. After you've created an action build, you can click on the Add Action button in the Build Inspector's Action pane. Select Scale from the Effect pull-down menu in the drawer that pops out of the Inspector, and use the slider to set how much the object grows or shrinks. To make the Scale action and the action you've already set up occur simultaneously, go to the Build Order drawer and select Automatically With Name Of Previous Build from the Start Build menu.



Animation on a Path Keynote's animations can now zig and zag, as well as travel in a straight line. Click on one of the red diamonds to adjust the curve.

Check It Twice To preview your work, go to the Build Order drawer, where each path is listed as a separate build. Click on a build to see a preview of the animation in the Inspector. (If you don't see the drawer, click on the More Options button at the bottom of the Inspector.) By default, Keynote arranges things so that a mouse click triggers each build during the presentation. If you want to create one smooth animation, go to the Start Build pop-up menu in the Build Order drawer and choose *Automatically After Name Of Previous Build*.

Smarten Up Your Image Builds

Sometimes you need to include more than one image on a particular slide. For example, imagine a political presentation in which every slide focuses on a different office and runs through a picture of each candidate, one at a time. In past versions of Keynote, displaying a series of photographs or illustrations—with flowing animation between each image—was possible but a hassle to set up. For every photo, you had to create both a *build in* (to make the image appear on the slide) and a *build out* (to make way for the next image). Keynote's new Smart Build feature streamlines the process considerably.

Begin to Build Select Insert: Smart Build, and choose from ten preset animations, including Dissolve, Flip, Spinning Cube, and Turntable (similar to the animations in Front Row). When the floating photo window appears, drag and drop images from the desktop or use Keynote's Media Browser (View: Show Media Browser) to pull images from your iPhoto library.

Customize It This is a great point at which to take advantage of another of Keynote '08's new features: Picture Frames. These are a special kind of graphical stroke that you can add around your photos to give them a particular look. For example, one picture frame adds a white border with old-fashioned photo mounts at the corners, and another makes your picture appear to be inset into the slide's background. You have a choice of 12 different Picture Frame effects.

Bringing It All Together

From Move actions to smart builds, Keynote '08 provides more tools than ever for creating killer animations. But how do you assemble those animations into a single cohesive presentation?

I've created a sample animation that combines three new features: action builds, smart builds, and picture frames. (See a movie of it at macworld.com/3264.) The animation recaps a recent cruise around New Zealand. An action build makes an animated cruise ship move from port to port. At every stop, one or more photos pop up (thanks to a smart build), and titles fade on and off the screen (thanks to build ins and build outs). Here's how it all came together.

Prepping the Map First I gathered an outline map of New Zealand and an icon of a cruise ship (I purchased images from iStockPhoto.com). I used Adobe Photoshop to clean up the edges and fill in the map with a color that matched my presentation. When I was finished, I dragged the images onto a Keynote slide.

With the new Instant Alpha feature (Format: Instant Alpha), I eliminated the background from each picture; then I applied a drop shadow to the map (using the Graphic Inspector). I inserted a dot to represent each port by creating a small circle and dragging the corners to adjust its size (Insert: Shape: Oval). I duplicated the circle six times (⌘-D) and then moved the dots into place on the map. I selected the dots and the map, grouped them (Arrange: Group), and locked their location so they couldn't be moved accidentally (Arrange: Lock).

Heading for Port To build the animation, I started with the first port:

1 I created a text box with the name of the city (Insert: Text Box), and inserted a line pointing to the city's location on the map (Insert: Shape: Line). I made sure the two items were grouped so they animated together.

2 Using the Build Inspector, I applied a build-in wipe effect to put the port's name and its associated line on the map.

3 I created a smart build and populated it with photos from that locale (see "Adding Smart Builds"). I chose a build-in effect so that the first photo would pop onto the slide, then applied a picture frame to enhance the look. To do that, I clicked on the smart build (on the slide itself), opened the Graphic Inspector, and selected Picture Frame from the Stroke pop-up menu.

4 I showed each image in the smart build by tweaking my animation's effect, direction, and duration settings in the Build Inspector's Action pane. I created an exit for my smart build by using a build-out dissolve effect. I did the same with the port name and the line.

5 I created a Move action to shift the cruise-ship icon to the next port (the ship was sitting behind the map, so I selected Arrange: Bring To Front), and I adjusted the animation's path so that the ship moved along a pleasing curve to its next destination.

Cruising Along Instead of going through the tedious process of re-creating this sequence for each port, I used a shortcut to finish my animation. After I created the first sequence, I duplicated that *slide* to create the remaining ports, tweaking each duplicate slide with new information. I added transitions between slides (using the Slide Inspector's Transition pane) to create a seamless animation.

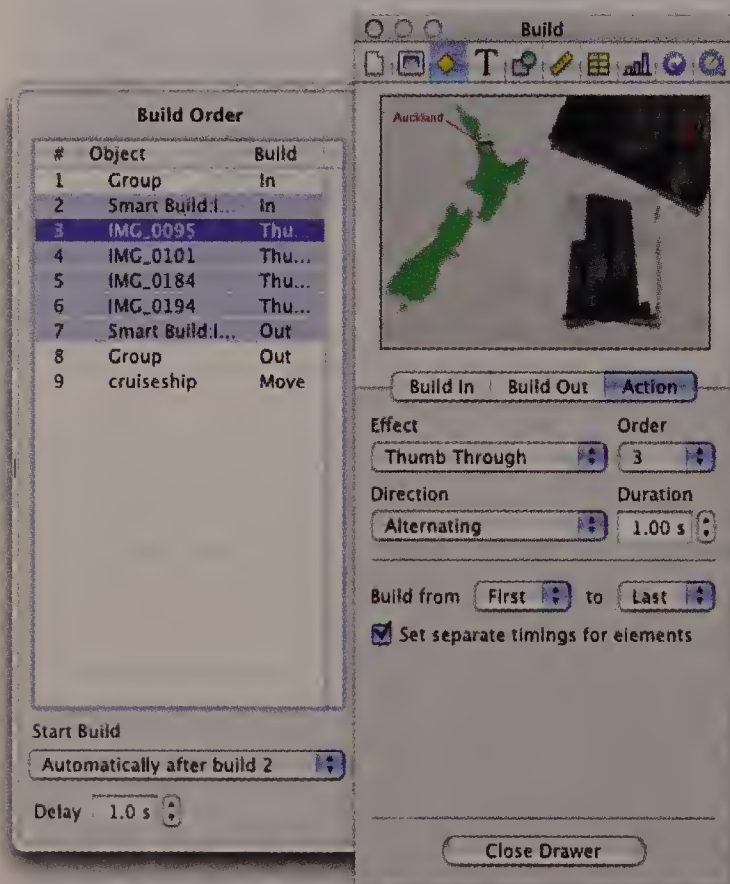


Adding Smart Builds When you add a smart build to your presentation, a floating window appears. Drag photos to this window. Here, I added a picture-frame effect to give images a torn look.

Quick tip: Although Apple only shows you 12 Picture Frames, there are really 72 Frames hidden inside Keynote. See macworld.com/3330 for instructions on how you can access all of them.

To add a Picture Frame, click to select the photo on your slide, then open the Graphic Inspector. In the Stroke section, choose Picture Frame from the pop-up menu. Click on the frame thumbnail, and then pick the frame you want from the frame gallery that appears. Finally, fine-tune your frame by using the Scale, Color, and Size controls (the latter two only appear in a few frame types).

In the Build Inspector's Action pane, you can specify the animation's direction, duration, and other attributes. You can also set different display times for each image: in the Inspector, select the Set Separate Timing For Elements option. Each photo will appear on its own line in the Build Order drawer. Click on the first photo's line, choose Automatically After Previous Build Name from the Start Build pop-up menu, and set a display time in the Delay field (see "Custom Durations").



Custom Durations When you're constructing a smart build, use the Delay field in the Build Order drawer to set how long individual images appear on screen.



TRY THIS

Access More Account Options

There's more than meets the eye in Leopard's new Accounts preference pane. Access some hidden options by control-clicking on an account name and selecting Advanced Options from the contextual menu that appears. (You might have to click on the lock and type in your administrator password first.) A sheet drops down from which you can change various settings for the selected account, such as its name and ID number.



It's the ability to change an account's short name that will prove useful to most people. Tiger offered no Apple-supported way to do this other than a complicated procedure that most of us wouldn't want to tackle. In Leopard, you can make this change in one easy step using the advanced options. Restart your Mac to see the new name take effect.

The other options here are hidden for a reason—a misstep could damage the account and make it impossible for you to access it. If you're technically inclined and adventurous, however, here's a brief description of what some of these settings can do:

- > Changing the login shell can be useful for people who prefer not to use a different Unix shell, such as **tcsh**. You can make the same change from Terminal (/Applications/Utilities).

- > Changing the location of the Home directory can be useful if, for example, you want to keep your user folder on an external drive (as some people do to make it portable). This was a complicated and risky procedure in Tiger. See macworld.com/3277 for some Leopard advice.

- > Changing the Group ID can allow you to change the default group for your account—for instance, from staff (ID = 20) to admin (ID = 80).—TED LANDAU

Once the smart build is on the slide, you can treat it like any other object. That means you can set it to enter or exit the slide with a swoosh or a wipe by applying one of the effects in the Build Inspector's Build In or Build Out panes. But there are some limitations—you can't move a smart build along a path, rotate it, or scale it, for instance. Also, since you can choose only one animation effect for the entire set of images, you'll have to use an action build, or regular build-in and build-out effects, if you want to apply a different kind of animation to each photo.

hazardly, they can also turn off an audience. Just remember your torment the last time you saw a presentation that used a boatload of slide effects to distract from lackluster content. Before you add an animation, ask yourself three questions, and don't proceed unless you can answer yes to all of them:

1. Does this animation help make my point *better* than words or images would alone?
2. Will the animation make it easier for my audience to understand the idea behind the slide?
3. Does the animation underscore what I'm saying?

Good presentations aren't about the slides or fancy effects. They're about your message. So don't use an animation if it's going to distract people from the real significance of your ideas. ✕

Attraction or Distraction?

Animations can be very effective—but used hap-

Longtime *Macworld* contributor **Tom Negrino** has written ten books about Keynote and PowerPoint. He keeps bullet points to a minimum in his presentations.



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Sing Along with Your iPod

How to find lyrics and add them to your songs **BY KIRK MCELHEARN**

Music and lyrics—these are equally important parts in the composition of a song. But while you can tap your foot or strum along with a tune on your air guitar, you can't sing along if you don't know the words. And how frustrating is that?

Lots of CDs provide the lyrics in the liner notes, but songs purchased from the iTunes Store or ripped from your CDs don't include that information in the file (and your iPod can't display the digital liner notes that accompany some iTunes albums). Nevertheless, iTunes and your iPod can still help you sing along by letting you add lyrics to your music files. Just as you can add album art to these files, you can insert lyrics into a special field, which you can then view in iTunes or on some iPods—including recent full-size and nano models, the iPhone, and the iPod touch (but only with a \$20 upgrade).

Pasting and Viewing Lyrics

Adding lyrics to a song is easy. In iTunes, select a track, choose File: Get Info or press \mathbb{I} , then click on the Lyrics tab. You'll see a big text field, into which you can paste lyrics that you've found on a Web site, transcribed from liner notes, or deciphered when listening to a song (this will work with purchased or self-ripped songs). Click on OK, and iTunes will save those lyrics to that song. The next time you sync your iPod, iTunes will copy your modified music files to it (assuming you've set it to autosync—otherwise you'll have to update the songs by hand).

When listening to music with iTunes, you can view lyrics as your songs play; just press \mathbb{I} to bring up the same Info pane. On an iPod that can display lyrics, press the center button four times while a song is playing to view its lyrics (on the iPhone



Canto Pod This program lets you search for lyrics by song or artist, or for the song you're currently playing in iTunes.

and iPod touch, tap on a song's album art). You'll have to squint a bit, and you'll need to scroll every once in a while to get the backlight to stay on (unless you have it set to stay on permanently), but you can scroll up and down and sing along as you please—just keep in mind that others nearby may not be as enthralled with your singing as you are. To dismiss the lyrics screen, press the center button again (on the iPhone and touch, tap on the lyrics).

Finding the Right Words

It's a breeze to add and view lyrics—the hard part is to actually find the lyrics you want. Lyrics, like music, are copyrighted, and a number of court cases have raised questions about whether Web sites can host collections of lyrics, or whether tools to find them are legal (the lyrics-fetching program pearLyrics, for example, was forced out of existence by legal threats). While plenty of Web sites pro-

vide collections of lyrics, there's no guarantee that the sites will stick around.

Many performers provide lyrics to their music on their own Web sites. Bob Dylan's site (www.bobdylan.com) has lyrics to all his songs; the official U2 Web site (www.u2.com) has all of that band's lyrics; and the Arctic Monkeys include lyrics on their site (www.arcticmonkeys.com). Search for your favorite artists and you may find what you're looking for. If you're interested in classical music, you'll find opera libretti online at places such as Lyle K. Neff's Libretto Homepage (macworld.com/3268), and if lieder or art songs are your thing, the Lied And Art Song Texts Page (www.recmusic.org/lieder/) has more than 20,000 texts in many languages.

To find lyrics on the Web, try searching for the name of a song or artist and the word **lyrics** in Google. You'll find several sites to choose from, though

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The AV 40 reference speakers have descended from our acclaimed line of professional reference monitors—no plastic multimedia speakers here. The 4" woofers and 3/4" tweeters provide punchy lows, crisp highs and plenty of volume. A sleek industrial design means they look right at home alongside your iMac, creating the perfect setup for unbeatable desktop audio performance.

these lyrics may not be very accurate; many of the sites seem to exist more to display ads than to provide trustworthy lyrics. One site worth checking out is LyricWiki (lyricwiki.org), a community-generated site that claims to have reliable lyrics; anyone who finds errors can correct the lyrics on the site.

As a last resort, you can type the lyrics yourself from liner notes or even transcribe them while listening to your favorite songs. Of course, this can be hard, as lyrics aren't always clear, and you may end up with *mondegreens*—passages you've misheard. You'd be surprised how often people think the Beatles are singing "the girl with colitis goes by" instead of "the girl with kaleidoscope eyes" in "Lucy in the Sky with Diamonds."

Automated Lyric Catching

If you have lots of music and want the lyrics for as many songs as possible, a couple of tools can help you do this more easily. Start by checking out Stay-lazy's Canto Pod 1.1 (payment requested; www.staylazy.net). This widget automatically checks LyricWiki for lyrics to a song you're playing in iTunes and lets you choose whether to copy them to that song. (It can also copy lyrics to your iPod by adding them as contacts in Address Book. You can then view them even when you're not playing a song—great for karaoke.) You can also search manually by entering an artist's name, a song's name, or both, and Canto Pod

will look for lyrics. If you enter only an artist, you'll see a list of songs the widget has found, and you can click on the one you want. Unfortunately, Canto Pod appends a few sentences at the end of the lyrics reminding you that the program provided them and mentioning some copyright information.

You can go a step further and automate searching for and adding lyrics as you listen to songs in iTunes. With Eternal Storms Software's GimmeSomeTune (payment requested; www.eternalstorms.at), you can hunt for lyrics each time you play a song in iTunes (the program won't overwrite lyrics you've already added). If GimmeSomeTune finds lyrics, it pastes them into the song file. The program

doesn't stop at fetching lyrics, though. It can also grab album art and display a floating window with the lyrics (via a keyboard shortcut or a menu selection), and it has a slew of iTunes control features, such as hot keys for controlling iTunes and setting ratings.

But what if you have many songs and you absolutely must get their lyrics before you head off to work? You could start each song, play it until GimmeSomeTune grabs the lyrics, and then skip to the next one, after GimmeSomeTune has gotten lyrics—but there's a better

way. Doug Adams's Needle Drop 2.8 script (payment requested; macworld.com/3269) plays the beginnings of your songs, so GimmeSomeTune has time to fetch and add lyrics, before moving to the next song. When you launch the applet, you choose how long to play each song and when to start. Ideally, you'll want to play each track for 10 to 15 seconds (more if you find that GimmeSomeTune isn't getting many lyrics, or less if you find that it retrieves lyrics fast) and start each song from the beginning. Select your playlist, make sure GimmeSomeTune is running, then launch Needle Drop. Go eat breakfast, and when you come back you'll have lyrics for plenty of your songs. Or, if you want to do this for your entire library, set it to run overnight or over a weekend if you have a lot of music.

One note: both of these programs depend on precise song tags. Even minor misspellings, or additional words such as *Live* after a song name, will prevent the programs from finding lyrics. So if they can't locate some lyrics, the tags may be at fault.

Singing Along

You probably won't want to use your iPod when you sing in the shower—and the people on the bus around you might not appreciate your voice—but adding viewable words to your songs can help you rediscover the power of great lyrics. ☒

Kirk McElhearn writes about Macs, iPods, books, music, and more on his blog, Kirkville (www.mcelhearn.com).

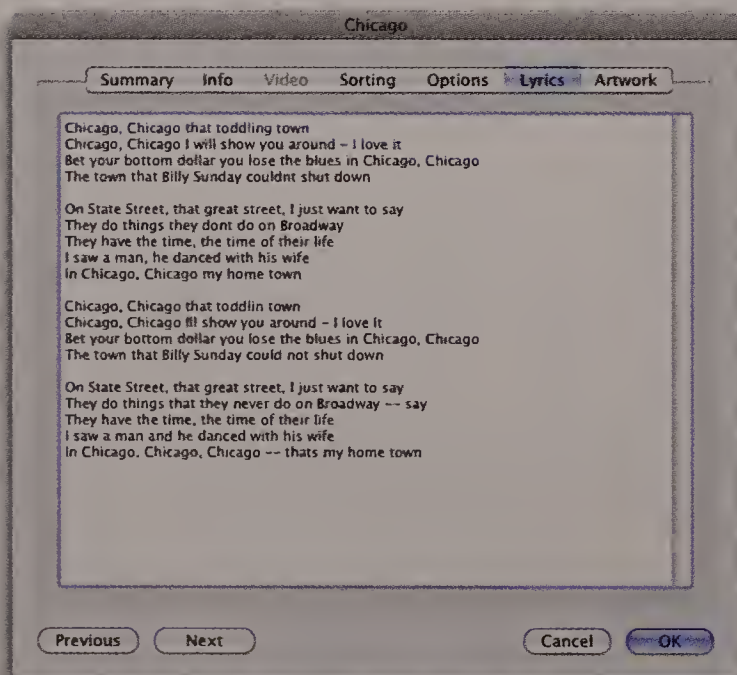


CHECK IT OUT



iPowerRush

Nobody likes running out of iPod battery life halfway through a long flight or arriving at a destination with a dead iPhone. Fusion Audio Technologies' \$30 iPowerRush looks to make sure you don't ever have either experience again. This battery-charge extender is powered by six replaceable AAA batteries (not included) and features a 30-pin dock connector, making it compatible with iPhones and all iPods that use the dock-connector interface. The unit also integrates a power switch and a push-button power indicator, and a limiting circuit prevents it from overcharging the iPod or iPhone. The manufacturer claims that the iPowerRush can extend the iPhone's talk time by up to 4 hours, Internet use by 3 hours, video use by 3.5 hours, audio use by 14 hours, or standby time by 120 hours (ipowerrush.com).—PETER COHEN



Lyrics Once you find lyrics, you can paste them into the Lyrics field in iTunes' Info window.

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Master Your Library

Explore hidden powers in iPhoto '08 **BY JIM HEID AND KELLY TURNER**

Much of the attention for iPhoto '08 has focused on the new Events pane, which organizes your photos based on when they were taken. But Apple's newest photo manager has many more tricks up its sleeve.

Import Photos Intelligently

In previous versions of iPhoto, importing photos was an all-or-nothing affair. But no longer. Now when you connect a camera or memory card, you can ⌘-click on just the photos you want to download and then click on Import Selected. Once it has added the photos to your library, iPhoto offers to delete the originals from your camera—but don't do it. The best way to delete photos from a memory card is to reformat the card using your camera's menu controls. This creates a fresh set of directory structures on the card, lessening the chance of losing photos to a memory-card glitch.

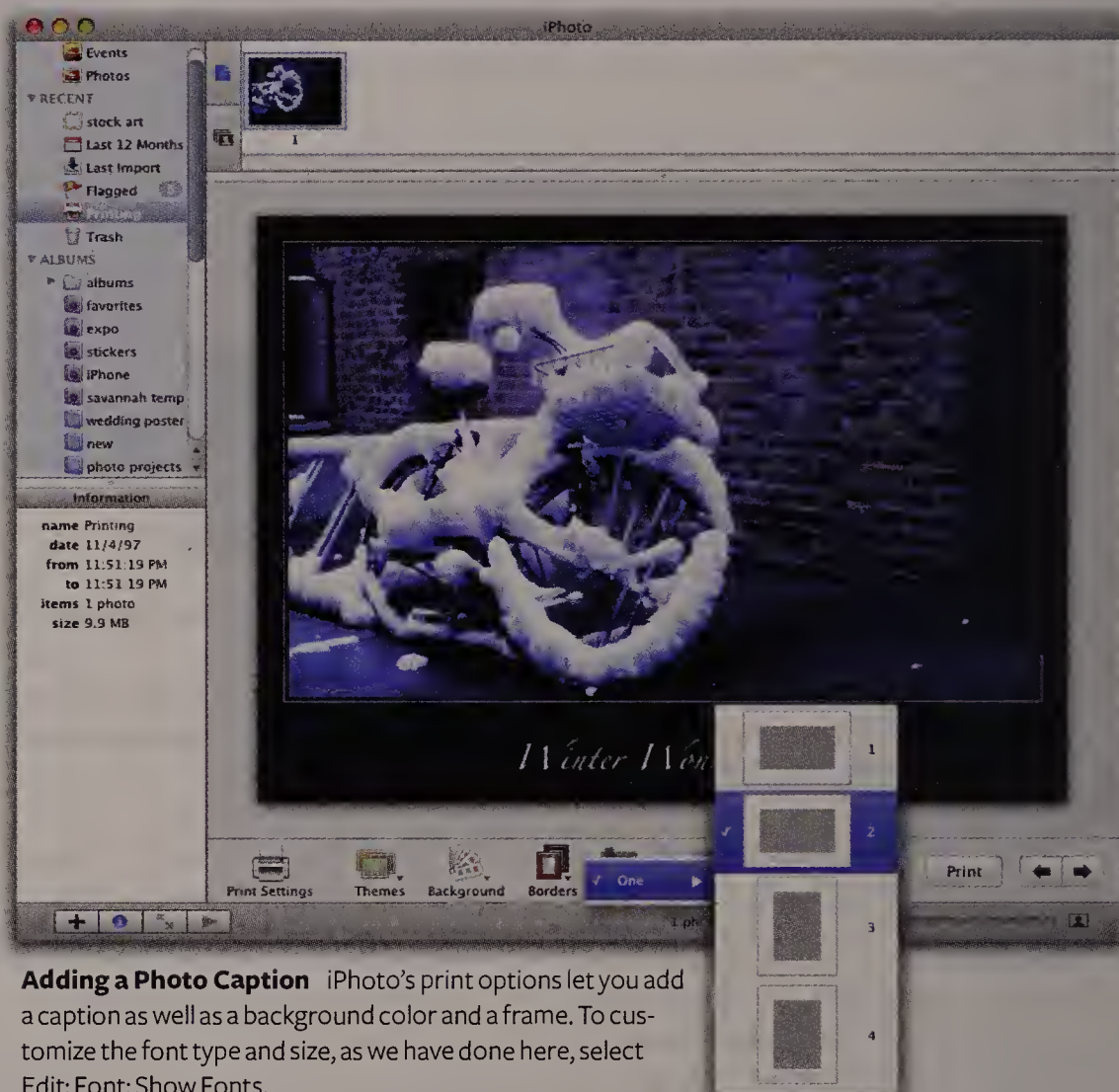
Title Your Prints

iPhoto's expanded print options let you not only place multiple images on a page and create photo-realistic mats, but also add captions to your prints. If you haven't already uncovered this feature, select one or more photos in your library and press ⌘-P. In the Print dialog box, select one of the print projects and click on Customize. Then click on the Layout button to choose a design that shows text (see "Adding a Photo Caption").

If you want to save the titled image, back to iPhoto, click on Print, and, from the PDF pull-down menu, select Save PDF To iPhoto.

Explore Your Fonts

iPhoto gives you two ways to adjust fonts in books, calendars, and cards. If you click on the Settings button while



Adding a Photo Caption iPhoto's print options let you add a caption as well as a background color and a frame. To customize the font type and size, as we have done here, select Edit: Font: Show Fonts.

creating a print project, you can change fonts globally—for example, you can change the font iPhoto uses for all of the dates in a calendar.

But what if you want a particularly important calendar event to appear in a larger font size? Or say you want to mix and match fonts in a heading. To perform these font feats, summon the Fonts panel (choose Edit: Font: Show Fonts). Select the text you want to change, and then choose the desired font options.

Faster Keywords

Keywords—descriptive tags or phrases such as *kids* or *vacation* that add context

to a photo—have always been one of iPhoto's lesser-used organizational aids. But hopefully that will change with iPhoto '08, which has made creating and assigning keywords much easier.

When you create a new keyword in the Keywords pane (Window: Show Keywords), iPhoto uses the first character of the word or phrase as a keyboard shortcut. For example, the keyword *beach* might have the shortcut *b*.

Now, as you go through your photos, you can quickly assign keywords without taking your hands off the keyboard. Simply make sure the Keywords window is visible (press ⌘-K to open it), and then press the appropriate short-

cut keys followed by the arrow keys to move from one photo to the next.

Even Faster Keywords

By the way, you can assign keywords—and even create new ones—*without* displaying the Keywords pane. The secret is to choose View: Keywords, and then click in the blank area beneath a photo's thumbnail. (If you've also chosen to display photo names or ratings, click beneath the name or rating.) Now start typing. If you start to type an existing keyword, iPhoto offers to complete it for you; press the return key to accept iPhoto's suggestion. If you type a new keyword, iPhoto adds it to your list of keywords and assigns it to the photo.

Smart Keyword Searches

If you've taken the time to apply keywords to your photos, you can use these clues to help locate photos based on their contents. In fact, since iPhoto applies some keywords on its own, you may be able to use this feature even if you haven't been diligent about assigning keywords.

Click on the search icon to the left of iPhoto's search field, and select Keyword from the pop-up menu. In the black box that appears, click on one of your keywords, and iPhoto will immediately display just the photos tagged with that keyword. Click on additional

keywords, and iPhoto will perform an AND search, finding those photos that have *all* the highlighted keywords.

You can also broaden your search by having iPhoto perform an OR search—for example, to find photos of family and/or friends—by holding down the shift key when clicking on additional keywords. Want to run a search that excludes one or more keywords? Simply option-click on the keyword that you want to exclude (see “Searching Keywords”).

Search by Date

The previous version of iPhoto offered a Calendar pane that appeared at the bottom of the Source list and let you quickly narrow down your photos by date. Although that pane no longer resides in the same place in iPhoto '08, it does still exist—you'll now find it as an option in the search bar's pull-down menu (along with the Keywords option). And like the keyword-search feature, the calendar search offers all of the same keyboard shortcuts that its predecessor did.

To access iPhoto's calendar search, click on the search bar's menu icon and select Date from the pop-up menu. Clicking on any bolded months or days will immediately show you all the images recorded during that time period. Want to see photos from *every*

The Keys to Editing

When you're editing a photo, you can activate most tools by pressing a single key on your keyboard.

Action	KEY
Open the Crop tool	C
Open the Straighten tool	S
Open the Red-Eye tool	R
Open the Retouch tool	T
Open the Adjust panel	A
Open the Effects panel	E
Open a selected photo in Edit mode	return
Discard changes and exit Edit mode	escape
View the original image without edits applied	shift

Christmas? Option-click on December 25. The date will turn purple and iPhoto will look back through time to grab every photo ever taken on that day. Incidentally, these shortcuts work in the calendar's Year view as well. For example, you could option-click on November to collect all photos ever taken around Thanksgiving, regardless of which date the holiday fell on each year.

Correct Bad Dates

If you forgot to set your camera's clock, all of your photos may be off by a few hours, or a few months. iPhoto '08 now makes it easy to put things right. Select a group of photos that are all mislabeled by the same amount of time, and then choose Photos: Adjust Date And Time. In the dialog box that appears, iPhoto will display the date and time for the first photo in the group. In the Adjusted field, enter the correct information. For example, if your camera's internal clock was 13 days behind, you would add 13 days to the original date and enter the new date into the field. Click on Adjust, and iPhoto will add 13 days to each photo's time stamp. ☒

Senior Contributor **Jim Heid** is the author of *The Macintosh iLife '08* (Peachpit Press, 2008) and its companion Web site, www.macilife.com. **Kelly Turner** is Macworld's senior features editor and the editor of *Macworld's Digital Photography* and *Total Leopard* superguides (macworld.com/superguide).



Searching Keywords Use the keyword-search option to track down photos with specific keywords. Option-click on keywords to find photos that *don't* include that keyword. In this example, we've searched for photos with the *Family* keyword but without the *Scan* keyword.

File Sharing in Leopard

Mac OS X 10.5 makes it easier than ever to share files **BY GLENN FLEISHMAN**

If you want to share files with other people (and who doesn't these days?), you can always send the files via e-mail or iChat. But it's far more efficient just to give your collaborators shared access to the files, folders, and volumes on your Mac and let them get the files themselves.

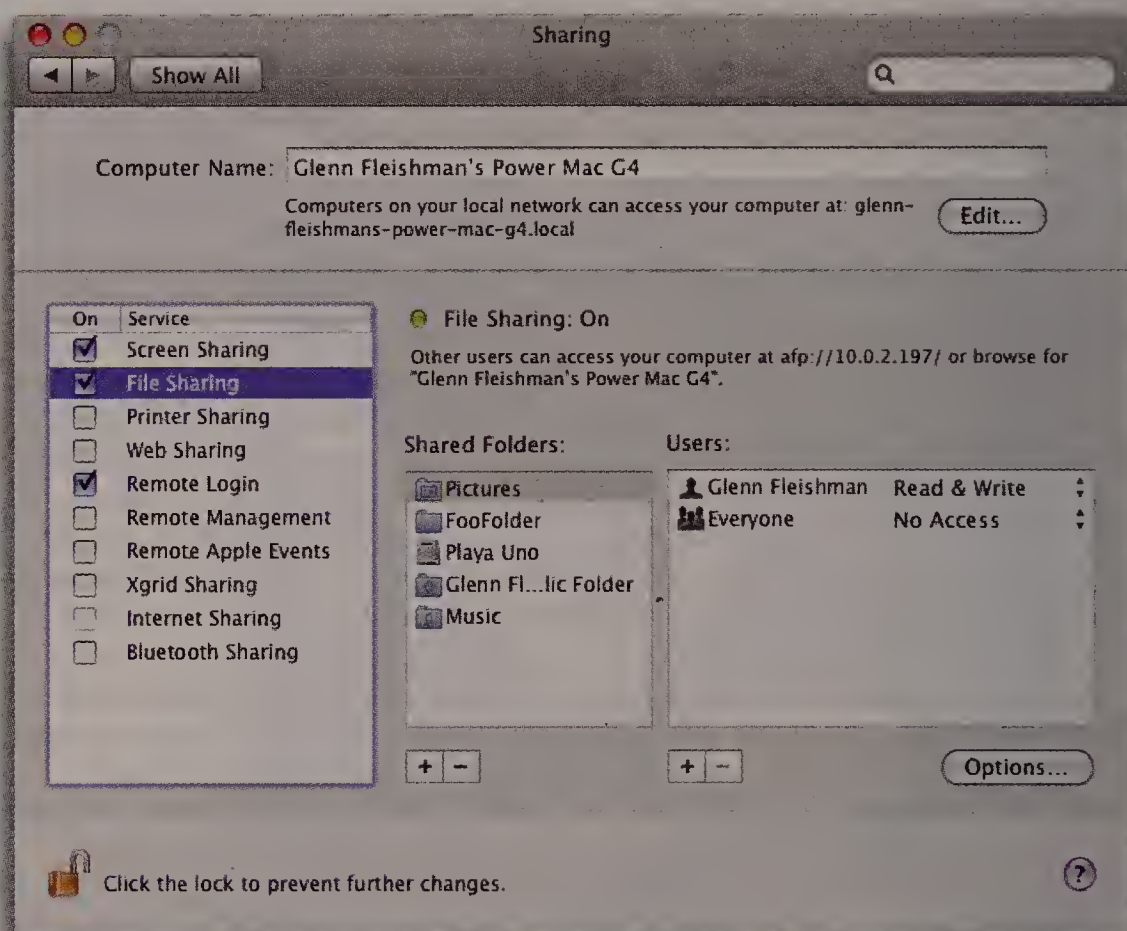
Unfortunately, OS X hasn't always made file sharing easy. Tiger and preceding versions of Mac OS X lacked some file-sharing features—such as the ability to share folders as networked volumes—found even in Mac OS 9; plus the tools you used to configure file sharing weren't always as straightforward as they should have been.

The good news is that in Mac OS X 10.5, Apple has dramatically improved the tools you use to share all kinds of resources from your Mac across local networks and the Internet. And some of the biggest—and handiest—of these improvements are in the ways Leopard lets you share files, folders, and volumes. In the Sharing preference pane, you can now specify which folders and volumes you want to share, which users get what kind of access, and which file-sharing protocol they'll use, all with drag-and-drop ease. Here's how it works.

What to Share

To start, launch System Preferences, select the Sharing pane, and select File Sharing in the Service list.

At that point, you'll see two windows: Shared Folders and Users. As the name implies, you use the first one to share entire folders and volumes. You can add a folder or volume to the Shared Folders list in two ways: drag it from the Finder into the Shared Folders window, or click on the plus-sign (+) button and navigate to the folder you want to share.



Sharing Preference Pane In Leopard's Sharing preference pane, you can specify which folders and volumes you want to share, with whom, and how.

You can choose to share any mounted volume—including a disk image—that isn't itself a network volume. You can share the entire volume or any directory within it. By default, this list already includes your public folder.

Note that you can also share folders and volumes in the Finder by selecting an item, choosing File: Get Info, and selecting General: Shared Folder.

Whom to Share With

In previous versions of Mac OS X, if you wanted to share files with someone, you had to set up a new account, with its own unique login and password. In Leopard, the process is much simpler.

Now you can add or remove users and groups in the Users list. To remove one

or more people, you select a user or group and click on the minus (–) button. To add users, you click on the plus button; when you do so, you'll see a list of users and groups in the Accounts preference pane. You'll also see an entry for your Address Book; you can choose any contact, click on Select, and set a password, creating a Sharing Only account.

You can create entirely new users by clicking on the New Person button in the unlabeled dialog box that appears when you click on the plus button. Any new users you create here will also appear in the Accounts preference pane as Sharing Only users. (The Guest account isn't listed here because it's included as part of the special Everyone group, and is not available otherwise.)

Warning: Do not remove or modify the default users for the startup volume or for special folders like System or Library. Doing so could disable Mac OS X and require a boot from the startup DVD and a trip through Disk Utility's Repair Permissions tool.

Leopard lets you configure file access for certain special classes of users, as well as for the people in your Address Book and Accounts lists.

If you look at the Accounts preference pane, you will see a user named Guest. This account lets other people use your Mac without compromising the security of your own account. But it also gives them password-free access to volumes you choose to share. So if you select the Guest user in the Accounts preference pane and enable the Allow Guests To Connect To Shared Folders option, anyone with network access to your Mac will be able to access your shared folders without having to provide a password. (The Guest account can't access files via FTP.)

You can also set up a new account type: Sharing Only. As the name implies, a Sharing Only account has remote access to shared folders and volumes on the Mac on which the account is set up, but no login privileges on that Mac.

You can create Sharing Only users in the Accounts preference pane by creating a new account and selecting Sharing Only from the New Account drop-down menu. You can also create a new Sharing Only user from the File Sharing pane by clicking on the plus button under the Users list; by default, that new user will be granted Sharing Only privileges. (Sharing Only users can access remote volumes only via Apple Filing Protocol [AFP], not FTP or Samba.)

You can select any folder or volume that you added in Shared Folders, and set specific access rights that correspond to users or groups of users. When you select a shared item, the Users list to its right fills with any existing permissions. For a folder in your home directory, you are usually listed along with the special Everyone user, which sets access for all accounts on the computer, including the Guest user.

You can specify one of four kinds of access rights—read only, read-write,

write only, or no access—via the drop-down menu to the right of the user or group name. Read-write access gives users complete creative and destructive rights to all files in the shared folder. Users with read-only access can view files and folders, but they can't change them. With write-only access, they can copy documents into the folder, but they can't view its contents. (That's why Apple helpfully appends the phrase *Drop Box* to the Write Only entry in the menu.)

Drop boxes are useful when you're trying to let people submit information but prefer to give them no other

access to the system. By default, Mac OS X sets up a shared Public folder in each user's home directory: the folder is set to read-only status, and a Drop Box folder inside Public is set to write-only status.

How to Share

With permissions for access set, you now need to choose the method—and protocol—you use to share files. Leopard, like Tiger and Panther, offers built-in support for AFP, FTP, and Samba.

Leopard improves tremendously on previous versions of OS X by making

Screen Sharing

Just as Leopard has made file sharing simpler than ever, it has made screen sharing—which lets you see and even control someone else's Mac screen, or vice versa—possible without any third-party software.

Giving access to your system is simple: Launch System Preferences, select the Sharing pane, and select Screen Sharing in the Service list. To limit access to specific people, click on the Only These Users button, and choose which users can remotely control the screen; users must then enter their Mac OS X passwords for access.

Accessing a remote system is a bit trickier. Leopard offers five ways to do so.



The Finder

Over a local network, any computer that has Screen Sharing enabled advertises that fact via Bonjour. Open any Finder window, and select the server from the sidebar's Shared list. If Screen Sharing is enabled, a Share Screen button should appear. Click on that and enter the appropriate user name and password for that computer.

iChat AV 4

Select a buddy, and the Screen Sharing button will (or won't) light up, depending on whether that contact has Screen Sharing enabled.

Click on that button, and you'll be offered the choice to Share My Screen With *Buddy* or Ask To Share *Buddy's* Screen.



Internet

Using the Screen Sharing program in /System/Library/CoreServices, enter the IP address or domain name of the remote system, and you'll be prompted for login information.

VNC on Tiger or Other Platforms

To access a Leopard system from Tiger, you'll need a VNC client; Chicken of the VNC (macworld.com/3331) may be the best choice.

On the Leopard system, turn on VNC access by selecting the Screen Sharing service in the Sharing preference pane and clicking on the Computer Settings button. Select VNC Access and enter a password to allow VNC use.

Leopard users can access remote VNC systems directly through the Screen Sharing program or via the Finder sidebar's Shared list using Bonjour, for those systems that support Bonjour.

In the Tiger system that you're making accessible, go to the Sharing preference pane and select Apple Remote Desktop. Click on the Access Privileges button, and choose which users to enable by selecting their names and then selecting Control.

Back To My Mac

See "Back To My Mac."

all three services accessible from one central location. Unfortunately, you can't specify what you want to share according to each sharing protocol. The permissions you grant to any given volume, folder, user, or group stay the same no matter which sharing protocol you use.

To specify how a given resource will be shared, click on the Options button in the File Sharing pane and select the protocol you want.

Typically you'll want to use AFP when sharing among Mac users. Previous implementations of AFP used unencrypted passwords, which created a security risk, but this is no longer the case. Unfortunately, that means some older systems may not be able to connect to your Mac if you're using AFP. Also, if systems that aren't yet using Mac OS X try to connect to a Leopard AFP server, you'll have to enable AppleTalk on the interface over which you're sharing. (Go to the Network preference pane, select the appropriate adapter and then its AppleTalk tab, and turn that option on or off; note that only one adapter can have AppleTalk active at a time.)

Samba is the best option if you're sharing files among mixed Mac, Windows, and Linux or Unix systems. Samba passwords are stored with weaker security than those used for Mac OS X. But to exploit even this weaker encryption, a malicious hacker must have access to the Samba pass-

word file; passwords in transit can't be cracked by any known means.

FTP offers the most unrestricted access to your files, but that's not necessarily a good thing: Leopard allows any full user account to connect via FTP without paying attention to the Shared Folders list of accessible shared volumes and folders. FTP users can traverse all mounted drives to which they have at least read-only permission.

FTP doesn't encrypt passwords at all, so it's unsuitable for use on any public network. You could use Secure FTP (SFTP), which uses strong encryption,

but it isn't integrated into Leopard's File Sharing service. Instead, you enable SFTP by turning on the Remote Access service. SFTP lacks the configuration options of FTP, so all physically connected local volumes are shared.

How to Access Files

Once you've set up file sharing, other users can access your Mac by selecting it from the Shared list in the Finder. By default, Mac

Back To My Mac

As the name implies, Back To My Mac lets you remotely access your Mac at the office or at home. It performs this bit of magic through the .Mac service and wide-area Bonjour. To enable Back to My Mac, you enter your .Mac account information in the .Mac preference pane, and then, in the Back To My Mac tab, click on Start.

Once you've done that, available Back To My Mac systems should appear in the Finder sidebar's Shared group. The services available on that particular computer—File Sharing and/or Screen Sharing—should show up when you select the remote computer. Shared folders should appear automatically; clicking on Share Screen shouldn't require a separate password entry.

The glitch in Back To My Mac is that it can have a hard time accessing Macs that connect to the Net through routers and Wi-Fi base stations. If the Mac you're trying to access doesn't have a publicly reachable IP address, you need to configure the router it's sitting behind. If you're using an AirPort Extreme or AirPort Express router (any version), that means enabling Network Address Translation Port Mapping Protocol (NAT-PMP). On other routers, it means turning on Universal Plug and Play (UPnP).

On routers without either feature, port mapping might allow you to create a tunnel between the router and a single computer on the gateway; Apple has a Knowledge Base article (macworld.com/3279) on how to make that work.

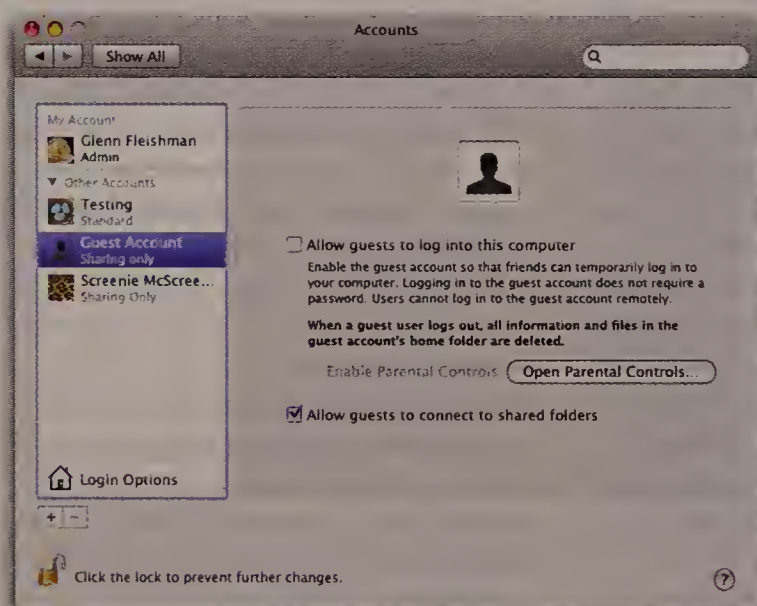


OS X will connect as a Guest. If you want to connect as a non-Guest user, click on the Connect As button and enter the appropriate user name and password. Resources shared in Samba, whether from another Mac, a PC, or a Unix box, show up with a Windows blue-screen-of-death icon (very witty, Apple). AFP icons correspond to the specific Mac model.

To connect to a server outside your local network, choose Go: Connect To Server from the Finder. Enter an IP address, a domain name, or even a Bonjour name to connect to AFP servers. (Not all IP addresses are publicly reachable outside the local network; see "Back To My Mac" for a solution to that problem.) For SMB or FTP, precede the name with smb:// or ftp://, respectively. For FTP, you can also use a stand-alone file-transfer program.

With both local and remote networks, Leopard no longer shows the mounted volumes on the desktop by default. Choose Finder: Preferences and click on General, and then select Connected Servers to show networked volumes on the desktop. ☒

Glenn Fleishman is the author of *Take Control of Sharing Files in Leopard* (TidBits Publishing, 2007; www.takecontrolbooks.com).



Guest Accounts You can give guests the ability to log in to your Mac or restrict them to shared folders only.



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Leopard Power Tips

8 tricks from the readers of MacOSXHints.com

Faster Screen Sharing

You probably know that you can share screens with another Mac from iChat and the Finder. But a more powerful tool for this purpose, cleverly named Screen Sharing, is hidden in /System/Library/CoreServices. When you launch it, you'll see a dialog box asking for the network address of the remote machine. If you don't know the IP address, quit Screen Sharing, switch to Terminal, and type (all on one line):

```
defaults write
com.apple.ScreenSharing
ShowBonjourBrowser_Debug 1
```

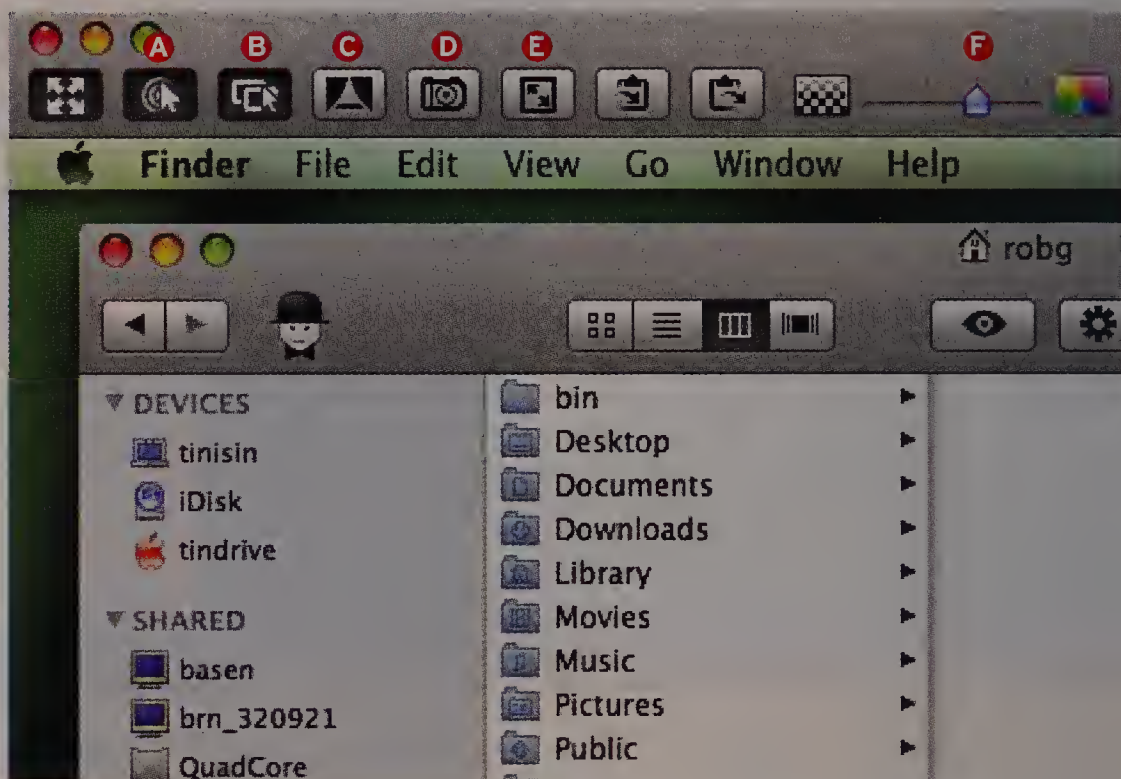
Now launch Screen Sharing again and revel in the new Bonjour Browser window, where you can pick the machine to which you'd like to connect. You'll still have to supply a user name and password, but at least you don't have to enter the full network address. If you want to make future access a bit easier, select Add To My Computers to add that machine to the Bonjour Browser window.—**CHRISTOPHER ALOI**

Power Up Screen Sharing

You can add some hidden functionality to the Screen Sharing tool. Quit Screen Sharing, switch to Terminal, and type the following (all on one line; type a space at the end of each of the first five lines, but not after **Curtain**, or **GetClipboard**):

```
defaults write
com.apple.ScreenSharing
'NSToolbar Configuration
ControlToolbar'
-dict-add 'TB Item Identifiers'
'(Scale,Control,Share,Curtain,
Capture,FullScreen,GetClipboard,
SendClipboard,Quality)'
```

When you relaunch Screen Sharing, you should see five new buttons and a slider on your toolbar. (If you can't see the tool-



Customize Screen Sharing The second button in the row **A** switches between letting you control the remote Mac (the default) and simply observing the other machine. The next one **B** switches between allowing the person at the remote Mac to use its keyboard and mouse (the default) and locking him or her out. The fourth button **C** locks the other Mac's screen, displaying an all-black background, a huge lock icon, and any text you enter after clicking on the button. The fifth button **D** captures the remote Mac's full screen to a local file; the system will ask you to pick a name and a save location. The sixth button **E** toggles between windowed (the default) and full-screen modes. In full-screen mode, the toolbar floats in the upper left corner of the screen. To exit full-screen mode, click on the X in the toolbar. If screen updates are going slowly, you can use the slider **F** to reduce the image quality—all the way down to a badly dithered black-and-white view—and speed things up.

bar, use View: Show Toolbar to make it visible.) See "Customize Screen Sharing" for a rundown of what each button does. These features don't always work flawlessly, but for the most part they run just fine. You can customize the toolbar as you wish—for example, use ⌘-drag to rearrange icons.—**DENNIS WILKINSON AND DANIEL STEFFEN**

Quickly Clear Stacks

Leopard's stacks have met a mixed reception, but I've found that I can increase my productivity by creating a Working stack for projects I am currently working on. (First I create a

Working folder in my home directory, and then I drag it to the Dock). When I start to work on a project, I drag aliases for all the relevant files into that Working stack (by holding down ⌘-option as I drag the files to the Dock). I then have quick access to all my current files.

While that Working stack helps a lot, it's annoying to have to empty it whenever I finish or switch projects. To fix that, I created an Automator workflow that clears all the files in the stack:

1. Files & Folders: Get Specified Finder Items Specify the Working folder you created in your home directory.

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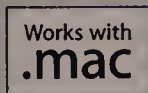
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2. Files & Folders: Get Folder Contents

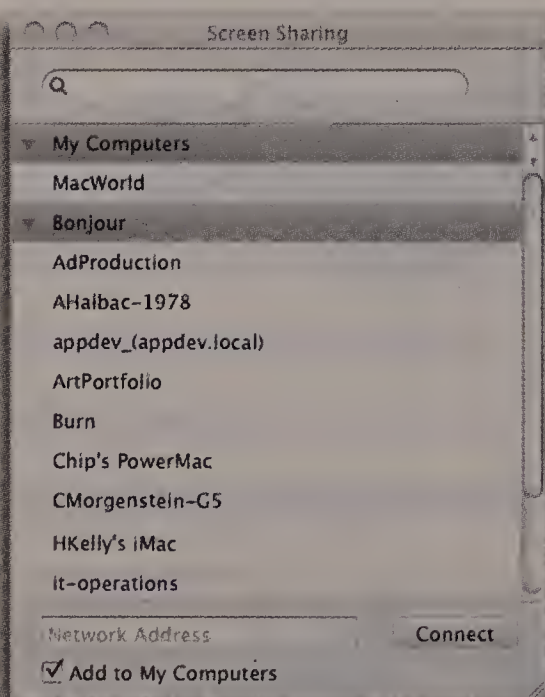
3. Files & Folders: Filter Finder Items: Name Is Not Equal To Clear Working.app

4. Files & Folders: Move Finder Items To Trash

I then saved this workflow as Clear Working.app and put it into the Working stack itself. Whenever I finish a project, I open the stack and double-click on the Clear Working workflow.—**ANDREW WAGNER**

Speed Up Folder Actions

Folder actions—scripts you can attach to specific folders—have been available in OS X since version 10.2. In Leopard, a Folder Action Dispatcher program triggers them, checking for modifications in a folder at a specified interval. Unfortunately, the default interval is 180 seconds, which can sometimes be way too long. Because Folder Action Dispatcher is scriptable, you can change that interval. Open Script Editor (/Applications/AppleScript), and type the following (all on one line): **tell application "Folder Action Dispatcher" to set polling interval to x**. Replace **x** with your desired polling interval in seconds. Click on the Run button in the toolbar, and voilà. If the Script Editor asks where Folder Action Dispatcher is, browse to /System/Library/CoreServices/.—**STEFF-X2**



Bonjour Browser Using the hidden Screen Sharing utility and a Terminal command, you can get a list of Bonjour-accessible computers whose screens you can share.

Monitor Your CPU Cores

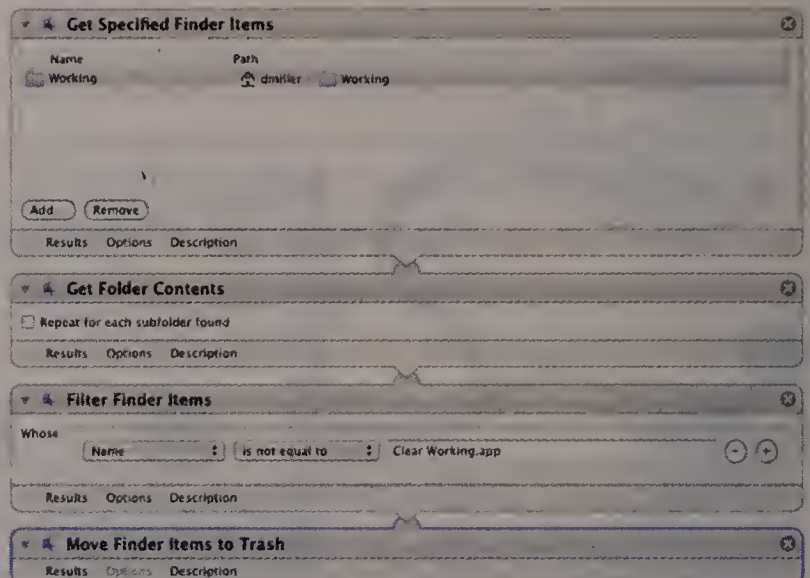
Activity Monitor's CPU pane is nice, but if you want a bigger picture of what's going on inside your Mac's CPU, navigate to /Library/Application Support/HWPrefs and launch the CPUPalette program. (If you don't find it there, insert your Leopard install disc, click on Optional Installs, select Packages, and double-click on CHUD.pkg; that will install CPUPalette.) It will display two graphs showing how busy your CPU's cores are, and let you disable one or more of them. Click on the oblong button in the upper right corner to reveal a settings panel where you can adjust transparency, sample interval and history, and chart format. You can drag the program to your Dock, sidebar, or toolbar for fast future access; to quit it, click on the red close button.—**SEMAJA2**

View Plists in Quick Look

At some point in OS X's evolution, Apple began saving plists in a binary format instead of in XML. That was a pain if you just wanted to look quickly at preference settings. You either had to convert the file to XML using plutil or open the file in Property List Editor, which is a poor browser. But in Leopard, Quick Look displays binary plists as XML. You can select a bunch of plists, launch Quick Look, and view all of them using Quick Look's simple navigation tools.—**JEFFERY PARKS**

Secret Screen Savers

If you're tired of Leopard's built-in screen savers, a slew of Quartz Composer compositions hidden in the System folder can add visual variety to your Mac's dozing screen. To try them, first quit System Preferences if it's running. Go to /System/Library/Compositions and drag as many of these files as you like from there to your user folder/Library/Screen Savers. (Create this folder yourself if it doesn't already exist.) Not all of these Quartz compositions will work as screen savers. In gen-



Clear Working.app With this Automator workflow in your Working stack, you can clear out that folder with a single click.

eral, if you can see a moving image in the Finder's preview pane, the file should work. I've found that Defocus.qtz, Fall.qtz, Grid.qtz, Image Hose.qtz, Moving Shapes.qtz, Travelator.qtz, and Wall.qtz work quite well. Once you've copied the files, open System Preferences, select Desktop & Screen Saver, scroll down to the Other section of the left pane, and select a new screen saver. Clicking on the Options button will let you tweak the settings on some screen savers.—**DATASMID**

Clean Up the 'Open With' Menu

Sometimes when you control-click on a file to use the Open With contextual menu, you'll see double entries in the list of available programs; you may even see programs you know you've removed from your Mac. What you need to do in that case is rebuild the LaunchServices database. To do so, open Terminal and type (all on one line; there should be no spaces between characters until **-kill**):

```
/System/Library/Frameworks/
CoreServices.framework/Versions/A/
Frameworks/LaunchServices.framework/
Versions/A/Support/lsregister -kill
-r -domain local -domain system
-domain user
```

Once you've rebuilt the database, the list of available applications should be dupe-free.—**JAN VERBEKE**

Hints provided by readers of MacOSXHints.com. Whenever possible, we've used the real names of the users who provided the hints. In some cases, when they prefer anonymity, we've used their screen names instead.

Help Desk

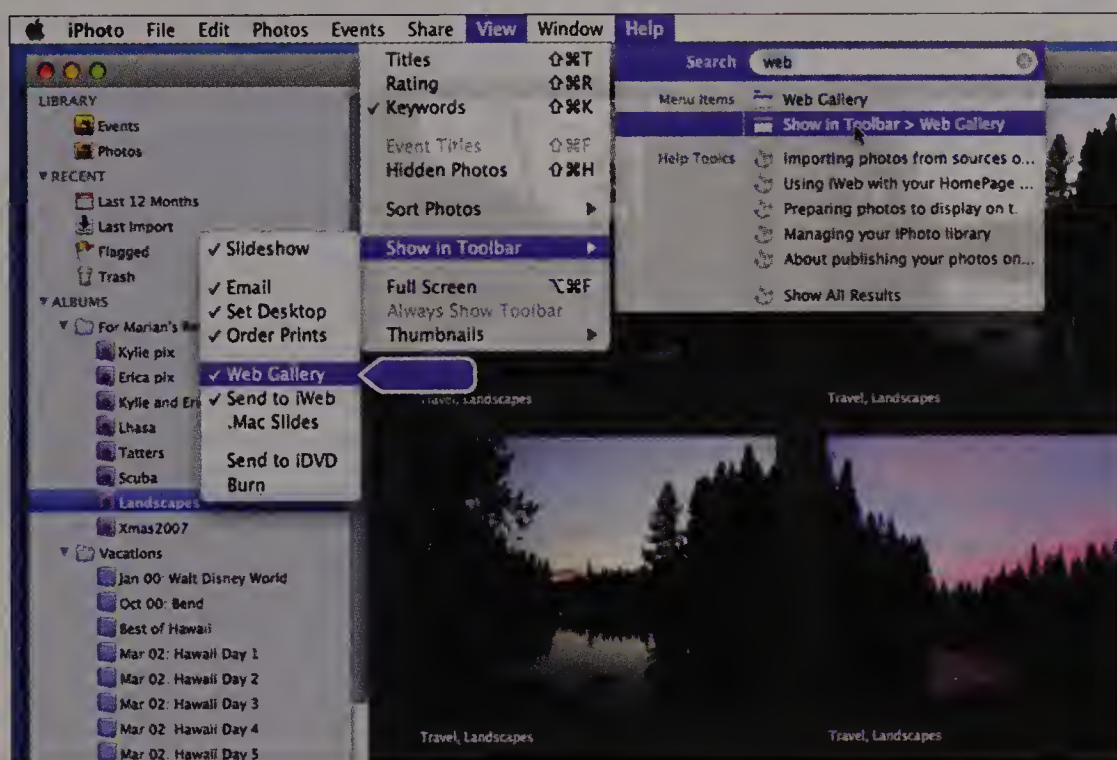
Mac OS X Hints

The insider tips you won't get from Apple **BY ROB GRIFFITHS**

Get Leopard's Help in Finding Buried Menu Items

In the past, I rarely used OS X's Help system because it was slow and, well, unhelpful. But in Leopard, things have changed. Now, whenever you select the Help menu (or press ⌘-shift-forward slash [/]), you see a drop-down menu with a search box and a list of key topics. The real power lies in the search box. Enter a search word or words, and Help will search the program you're in for information about what you've typed. The nifty part is that it doesn't just search the program's help files; it also searches—and gives you one-click access to—the program's menus.

In Safari, for instance, type **hid** in the Help search box, and the menu will list Help file entries related to hiding, as well the various Hide commands—from Hide Bookmarks Bar to Hide Toolbar—available through Safari's menus. Click on a command to execute it. Alternatively, if you just want some help remembering where that menu command lives, either hover over it with the mouse (but don't click on it), or use the down



Find the Menu Command Using OS X 10.5's new Help system, you can find—and activate—menu commands within programs.

arrow to highlight it. When you do, the Help system will show you the location of that command, along with a can't-miss-it big blue arrow pointing at the menu item—the arrow even shimmies around a bit to draw your eyes to the right spot (see “Find the Menu Command”).

This is particularly useful when you know the program you're using has a menu command for something, and you vaguely recall what it's called, but you have no clue where it might be buried in the program's menus. And surprisingly, the Help system seems to work in nearly every program—updated for Leopard or not. It even works in Microsoft Office 2004 programs, which aren't designed for the Intel processor.

Zoom in Quick Look Mode

Mac OS X 10.5's Quick Look is a great way to get a fast preview of nearly any document, especially PDFs and images. You don't have to wait for the program that created it to launch—just highlight the document in the Finder and press the space bar to see it in the Quick Look window. You've probably figured out that you can page through PDFs in Quick Look mode with your scroll wheel (or with two-finger scrolling on a trackpad). But few people know that you can also zoom in and out when you're looking at PDFs and image files.

First, click in the Quick Look window. To zoom in on PDFs, press ⌘-equal sign (=). To zoom out, press ⌘-minus sign (-). The zoom range provided for PDFs is truly amazing, if

Have a hint to share?

Go to MacOSXHints.com to submit it. This column was based on tips from James Engelby, Travis Martin, Jason

Wiggins, and anonymous contributors. Each month, the author of our favorite tip receives the *Help Desk* mug.

HELPED THE
HELP
DESK

not especially practical. Press and hold the zoom-out keys and you can make the entire PDF appear no larger than a single pixel. Go the other direction and a period can fill the screen. Confusingly, images use a different shortcut—and the range of zoom isn't anywhere near what it is for a PDF. To zoom in on an image (again, click in the Quick Look window first), press the option key and click on the image. To zoom out, press shift-option and click on the image. Once you've zoomed in, you can move an image or PDF around with the scroll wheel, trackpad scrolling, or the scroll bars.

Access System Profiler Fast

In OS X 10.5, it's easier to open System Profiler and access tons of information about your system (which can be particularly useful for troubleshooting). Press the option key, either before or after activating the Apple menu, and you'll see that the About This Mac item changes to System Profiler. System Profiler is even more useful now that it can show you the potential burning speed of your recordable media. Click on the Disc Burning entry in the Contents column and then insert your recordable media. System Profiler will tell you the speed at which your Mac can write to that media.

Customize Archive Handling

If you're like me, the archive dance goes something like this: download a file from the Internet, expand its archive, mount the disk image, drag the program to the hard drive, eject the disk image, and then move the disk image and the archive to the Trash. Those are a lot of

WHAT'S ONLINE

Customize Your Login

If you don't like the image behind the login window, it's easy to change in OS X 10.4 and 10.5 (macworld.com/3291).

See and Use Huge Icons Learn how to view and use Leopard's impressively large and beautiful icons (macworld.com/3292).



POWER TIP OF THE MONTH

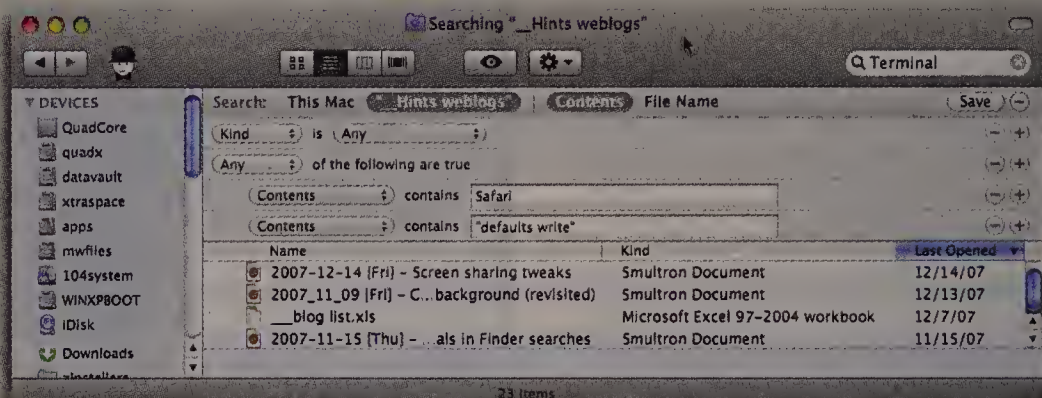
More Flexible Finder Searches

Leopard's Spotlight finally lets you search for phrases within documents and use Boolean operators (such as AND, OR, and NOT) to refine your search results. You have two options for accessing these tools: use Boolean operators when you're typing in the Spotlight search field, or use a hidden feature in the Finder's search window.

Consider this hypothetical search: I'd like to find anything in my Macworld Weblogs folder that contains the word *Terminal* and then either the phrase *defaults write* or the word *Safari*. If I wanted to type this request as a search string, it would look like this:

Terminal AND (Safari OR "defaults write")

If I access Spotlight by selecting ⌘-F in the Finder, select my Macworld Weblogs folder in the search bar, and then type that string in the search box, Spotlight finds 23 matches. Here's the secret to building the same query without having to type it all out. Start a search as usual in the Finder. In this case, you do that by typing Terminal in the search field (with the Macworld Weblogs folder selected in the Finder), and then choosing the Macworld Weblogs folder as the search location. Now click on the plus-sign (+) button to add a criterion. Leave it set to **Kind Is Any**. Then add a criterion by holding down the option key as you click on the plus-sign button. The plus sign changes to an ellipsis (...). Click on that ellipsis while pressing the option key, and you'll get a new section where you can set the conditional for Any (OR), All (AND), or None (NOT). For this example, leave the pop-up menu set to Any, and set the first condition to **Contents Contains Safari**. Then click on the plus-sign button, and add **Contents Contains "defaults write"** (see "Boolean Finder Searches").



Boolean Finder Searches By holding down the option key while clicking on the plus-sign button, you can build more-complex searches in the Finder's search window.

steps just to get the latest shareware. But in OS X 10.4, there's not much you can do to make the process quicker. At first glance, that seems to be the case in OS X 10.5 too, but that's not so. Leopard's new archive expansion tool, Archive Utility, is a full-fledged program.

Launch it by navigating to /System/Library/CoreServices and double-clicking on Archive Utility. Its icon then appears in your Dock. Select Archive Utility: Preferences to set various expansion and archiving preferences. Here you can specify a folder to expand all archives into and tell the system what to do with the archives after expansion. Not only can you choose to move archives automatically to the Trash, but you can completely

delete them if you prefer. You have similar options when creating archives, and you can even change the method of archive creation used.

If you're going to change these preferences a lot, drag a copy of Archive Utility to your Dock or the Finder's sidebar. Better yet, take advantage of a supersecret preference pane that Apple buried within the program. In the Finder, control-click on Archive Utility and choose Show Package Contents from the pop-up menu. Navigate to the Contents/Resources folder, and then double-click on Archives.prefpane. The system will ask if you'd like to install a new preference pane for all users or just for the current user. Decide what



Archives Preference Pane Add this handy pane to quickly set the preferences for OS X's built-in compression and decompression tool.

you'd like to do, and then click on Install. Presto—now you can go to System Preferences and click on Archives (under the Other category) whenever you want to change your settings (see “Archives Preference Pane”).

Change Icon-View Options

Leopard now lets you adjust icon size—as well as the position of the text labels—in open and save dialog boxes by accessing a convenient though oh-so-hidden menu. If you prefer to see larger or smaller icons than the default, look for this menu behind the icon-view button in the save or open dialog box's toolbar. To make it appear, you must click and hold on the button—control-clicking won't work. Use the Label Position menu item here to move the icon labels from the bottom to the right.

Keep in mind that changes made in this dialog box apply to all programs, not just the one in which you're changing them. The settings are also permanent, and will remain in effect after you log out or restart (although you can change them again anytime).

Alter Saved Searches

After you've saved a search—say, “find all photo files that I modified in the last week”—in Leopard, you can access it in many ways, including from the very convenient Search For section of the Finder's sidebar. However, what if you want to edit the saved search after you recall it? You can do so, but it's not obvious how. Option-clicking on the search name in the sidebar doesn't work, and you won't see any Edit options when

OS X 101

Make Your Mouse Truly Mighty

Most of us don't think twice about our mice—and I'm not talking about the kind that scurry across the kitchen floor, but about those from the subgenus *Electronica iuncta*. There's a lot of power hiding in the roller-ball mouse—aka Mighty Mouse—that has shipped with new Macs since the fall of 2005. Here's how to save yourself clicks.

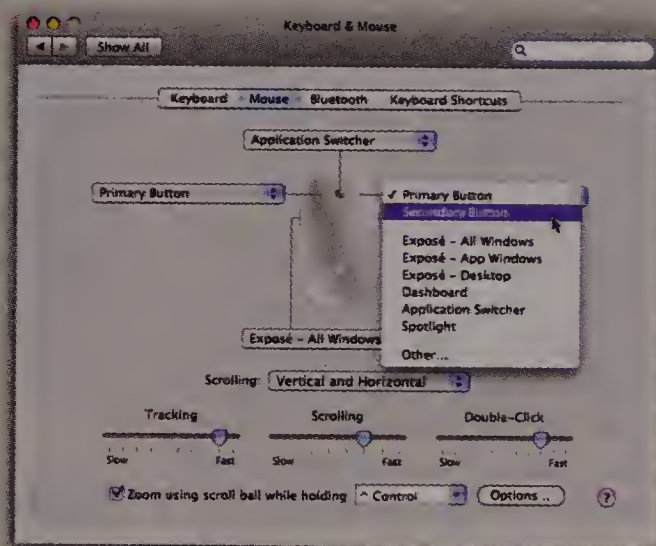
Two Buttons Are Better Than One First stop: the Mouse tab of the Keyboard & Mouse preference pane (see “Mouse Settings”). Give yourself a second mouse button here so you can easily access contextual menus. Click on the pop-up menu to the right of the mouse, and select Secondary Button. Now you can just tap the right side of the mouse for contextual menus, instead of control-clicking every time.

One-Click Access Now customize your mouse to make it work as you'd like—use the other pop-up menus to pick the functions you use the most and assign one to each button. For example, you can set a button to activate a given Exposé mode, Dashboard, Application Switcher (⌘-tab), or the Spotlight search box. If you have a file (a program or document) that you use a lot, check out the Other entry at the bottom of the pop-up menu list. Using this, you can put that file one click away from activation.

Scroll Ball as Button Notice that the scroll ball also functions as a button—it's very easy to press, so set it to something you access often. (In OS X 10.5, you can even set it as the primary or secondary button.) The left and right buttons (those gray patches that look like finger rests) are much harder to press—due to both their location and the required force—so set them to activate a command you use less often. (They work together as one.)

Scroll Control The Scrolling pop-up menu controls how the roller ball works—for vertical scrolling, for both horizontal and vertical scrolling, or for 360-degree mode. The difference between the last two is subtle—in the first mode, you can scroll only in one direction at a time; in the second mode, you can scroll diagonally. While it takes some getting used to, this is the mode I prefer. The Tracking, Scrolling, and Double-Click speed sliders are all self-explanatory.

Zoom Scrolling The last feature, Zoom Using Scroll Ball While Holding option, is actually quite powerful. If you have ever found text on a Web site too small to read, or have wanted to zoom in and examine a picture in more detail, zoom scrolling is the simplest way to do it. Make sure this option is selected, pick the desired modifier key from the pop-up menu, and then hold that key down and roll your scroll ball up to zoom in and down to zoom out. It doesn't get much simpler than that.



Mouse Settings This panel holds the key to making your mouse more useful. Use the pop-up menus to set each button to perform a different function.

you look in the Finder menu or the saved search's contextual menu. So how do you do it? After activating your saved search, click on the Action icon (the gear) in the Finder toolbar, and select Show Search Criteria in the drop-down menu that appears. Modify your search

and then click on the Save button. As far as I can tell, this is the only way to edit a saved search, so don't remove the Action icon from your toolbar. ☒

Senior Editor **Rob Griffiths** runs the Mac OSX-Hints.com Web site.

Mac 911

Solutions to your most vexing Mac problems **BY CHRISTOPHER BREEN**

Quickly Rename iPhoto Images

Q: My family has five different Canon cameras, all of which name photos with sequential numbers. iPhoto handles this just fine, but trying to back up or copy the pictures produces error messages about duplicate names. Is there an easy way to resolve the problem, short of renaming every picture manually?

Rob Grimshaw

A: New options in Apple's iPhoto '08 (****; macworld.com/3061) make it easy to convert the titles of the photos in your library and then export the images with unique file names.

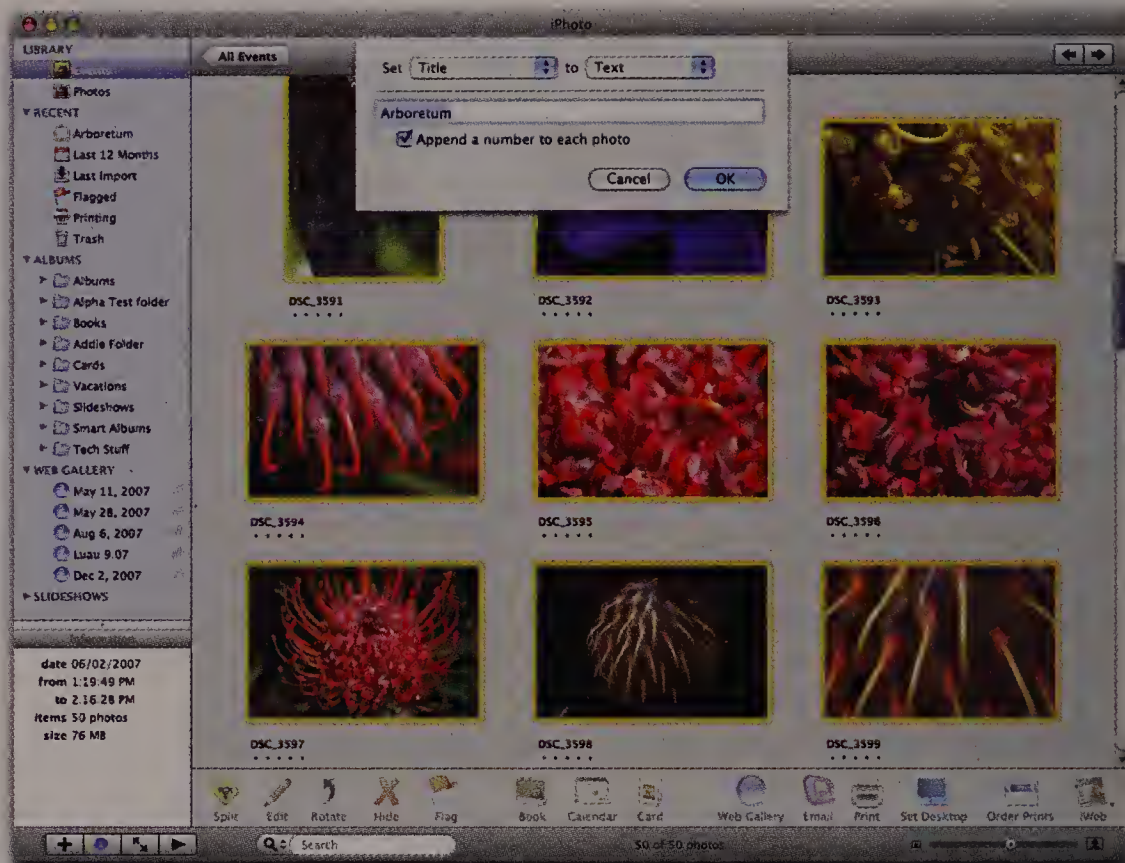
Select the Events entry in iPhoto's Library list. In the window to the right, select an event—your kid's birthday party, for example, or your visit to the local arboretum. Choose Photos: Batch Change. In the sheet that appears, choose Title from the Set pop-up menu and Text from the To pop-up menu. In the field below, enter a title that you'd like to assign to your pictures (see "Batch Change"). Select the Append A Number To Each Photo option and click on OK. Each image in that event will adopt a new title—for example, Arboretum - 1, Arboretum - 2, and so forth.

Of course, you don't have to edit entire Events; you're welcome to do this with images you've selected in another way. Using Events is faster but may cause you to rename more images than you care to.



Have a problem?

Go to the Mac 911 forum (macworld.com/2467) for help with your misbehaving Mac or applications.



Batch Change To export your pictures with unique names, begin with iPhoto's Batch Change command.

Although you have changed the Title tag for your images, you'll notice that when you drag one of those images to the desktop, the copy retains the name your camera assigned to it, not the title you just imposed in iPhoto.

That's where the Export command comes in. Select the events or images you want to copy (the ones with new names) and choose File: Export. In the resulting Export Photos window, make sure the File Export tab is selected and, from the File Name pop-up menu, choose Use Title. Leave the Kind pop-up menu set to Current. Click on Export, navigate to where you'd like to copy your photos, and click on OK. iPhoto will create the copies with the unique sequential title you chose.

AWOL Leopard Widgets

Q: After I updated to Leopard, my widgets disappeared. I checked around, and it sounds like this is a common problem. Any ideas?

Mike Zeyen

A: I've been there. While attempting to demonstrate Safari's Web Clip feature for a training video, I dutifully clicked on the Web Clip button, selected some text on a Web page, clicked on Add, and . . . nothing. Moving to the Finder, I pressed F12 to produce Dashboard, and although the screen dimmed and Dashboard's large plus-sign (+) button appeared in the lower left corner of the Mac's screen, no widgets were in evidence. Clicking on the plus-sign button, I attempted to launch some widgets. No go.

I had altered my Mac very little since installing Leopard. Widgets had worked the day before. What had I changed in the meantime? Then it dawned on me. To demonstrate the new Parental Controls in Leopard's Accounts preference pane, I'd created an account managed by Parental Controls. Although I wasn't logged in to that account, its creation and the disappearance of my widgets seemed to coincide. I logged in to the controlled account and logged back out, and the widgets reappeared.

Apple is aware of the issue and, in a Knowledge Base article (macworld.com/3282), levels an accusing finger at Fast User Switching. Apple's advice is to avoid using Fast User Switching to switch between accounts that don't have Parental Controls and accounts that do.

Pitching MIDI

Q: I'm working on a short musical program for children and would like to provide song sheets based on audio of me singing the ditties. Have you come across a way to convert an AIFF file from Soundtrack into a MIDI file that you can import into a notation program?

Luke Seerveld

A: What you're after is a utility that can interpret the pitches found in a digital audio file and convert them to MIDI data—this is known in the biz as *pitch-to-MIDI conversion*. At one time, a few utilities performed this minor miracle, but most of them have disappeared. One option that remains is WidiSoft's WIDI Audio To MIDI

plug-in (www.widisoft.com), available in VST and Audio Unit versions and priced at \$60 and \$80, respectively.

Access the plug-in from your favorite compatible audio program—Soundtrack or GarageBand, say—and click on the plug-in's Record button (see "Pitch-to-MIDI Conversion"). As the audio plays, the plug-in converts it to MIDI data and saves the results as a standard MIDI file (SMF). You can then import that file into your notation program (or into a program that allows MIDI editing, such as GarageBand) and clean it up.

I've played with it a bit, converting a GarageBand

single-note acoustic guitar track to MIDI. The results were pretty close. I had to delete a couple of bad notes and remove an octave doubling, but the basics of the melody were there. The plug-in's interface is not terribly attractive, but a quick dash through the Help files will get you up and running.

Because the results can be mixed—particularly with the kind of imperfect pitches produced by a singer with a less-than-well-trained voice—I strongly urge you to try the demo before laying down your cash. If you're not satisfied with the results, allow me to suggest that any number of musicians in your area would be happy to earn some extra cash transcribing your hums and yodels. ☒

Senior Editor **Christopher Breen** is the author of *The iPhone Pocket Guide* and *The iPod and iTunes Pocket Guide*, third edition (both from Peachpit Press, 2007).

Bugs & Fixes

BY TED LANDAU



Leopard Finder Trouble

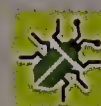
When running Mac OS X 10.5 (Leopard), you may find that the Finder doesn't completely load. In particular, the menu bar might appear, but nothing will show up on your desktop. A troublesome file is to blame. To delete it, click on the Spotlight icon in the menu bar and search for Terminal. Launch the program, type the following command, and press return:

```
sudo rm /Library/Application\
Support/Divxnetworks.prev
```



iMovie '08 Import Problem

If you import video from your Panasonic AVCHD camcorder into Apple's iMovie '08, you might be surprised to find that it appears stretched or distorted. The solution is simple. Select Apple Menu: Software Update and upgrade your copy of iMovie '08 to version 7.1 or later.



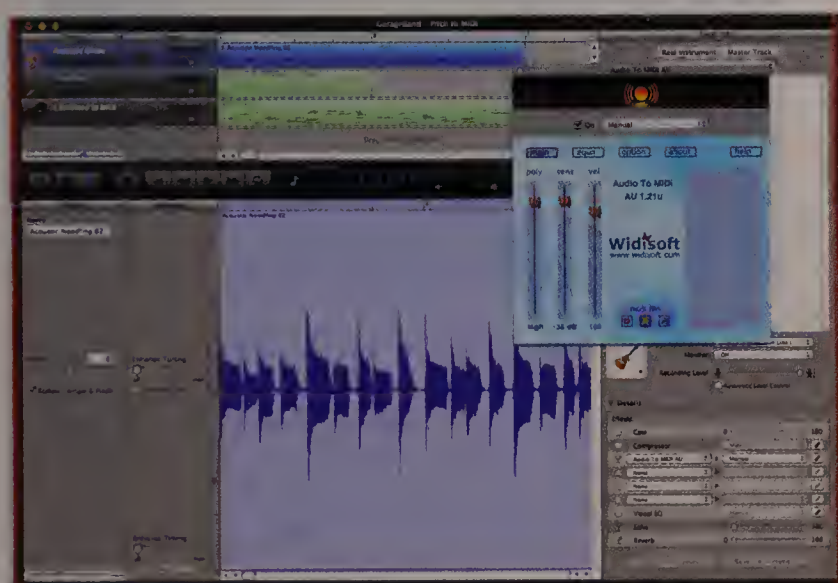
When Adobe Programs

Won't Install When you're installing the \$999 Adobe Creative Suite 3 (macworld.com/3286) or the \$649 Adobe Photoshop CS3 (🔴🔴🔴🔴);

Get DropStuff Working Again

After you upgrade to Smith Micro Software's Stuffit 12 Standard or Deluxe (macworld.com/3289), DropStuff may no longer work properly. When you try to use it to compress a file, Stuffit Setup Assistant launches instead. The fix is a common one: delete the relevant preferences file. In this case, go to your user folder/Library/Preferences and delete the com.stuffit.DropStuff.plist file.

Senior Contributor **Ted Landau** is the founder of MacFixIt (www.macfixit.com) and the author of *Take Control of Troubleshooting Your iPhone* (TidBits Publishing, 2007). Share your problems at bugs@macworld.com or on Macworld.com's Mac 911 forum.



Pitch-to-MIDI Conversion WidiSoft's WIDI Audio To MIDI plug-in lets you convert digital audio to MIDI data.

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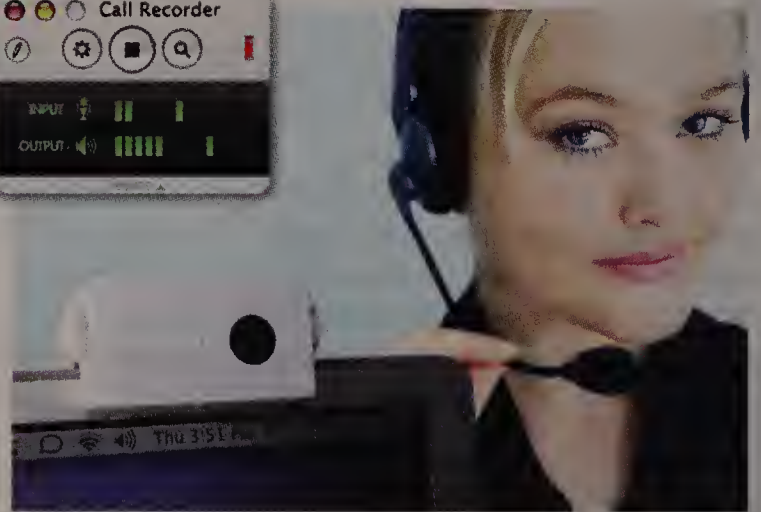
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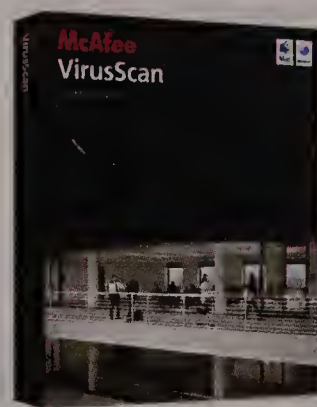


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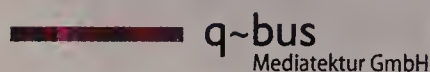


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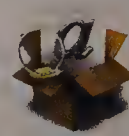
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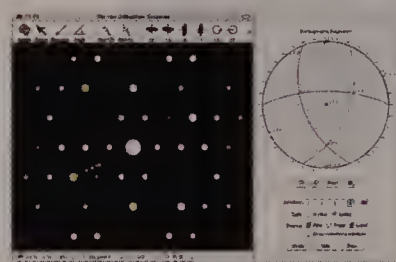


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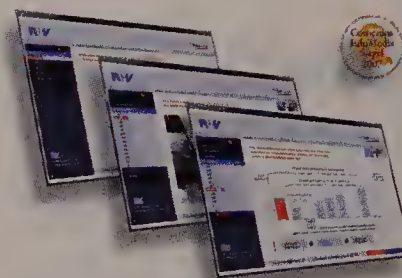


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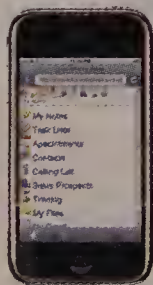


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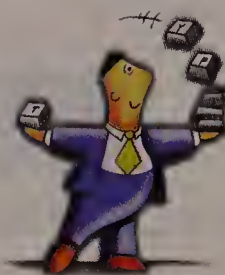
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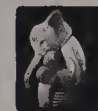
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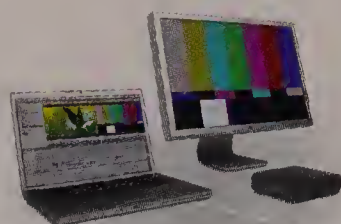
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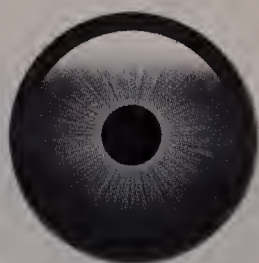


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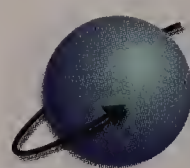
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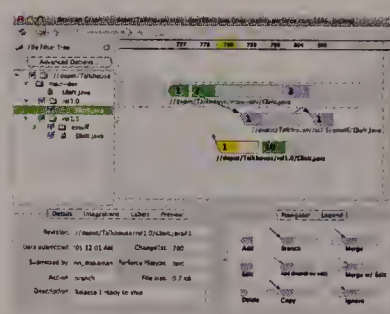
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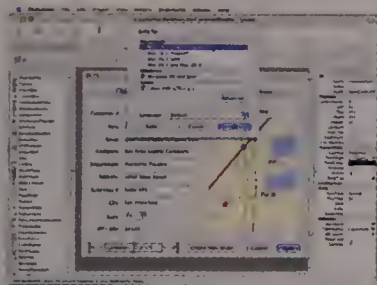
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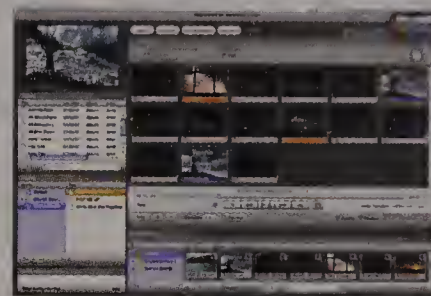
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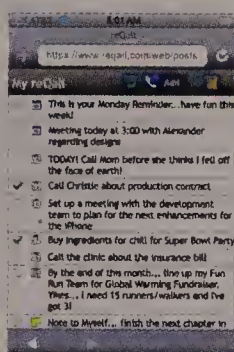
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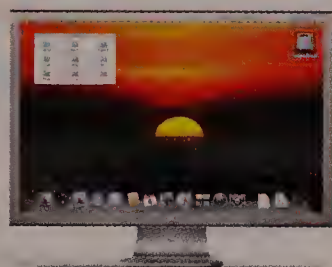
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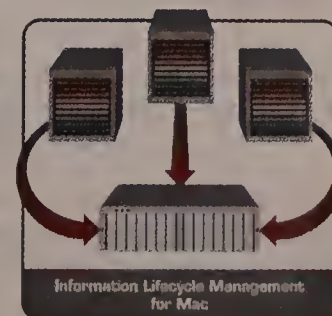


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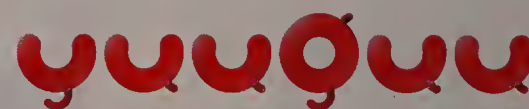


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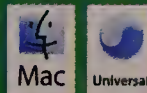
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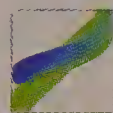
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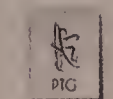
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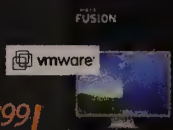
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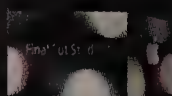
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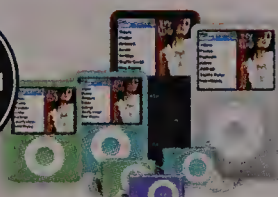


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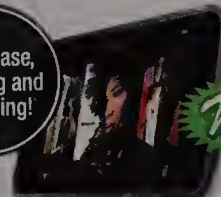
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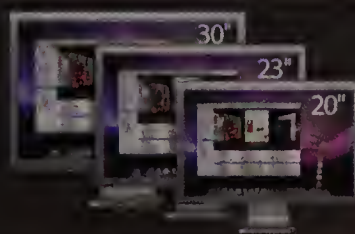
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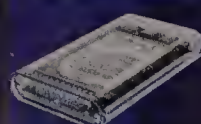
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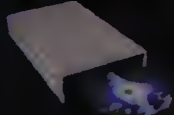
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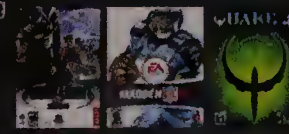


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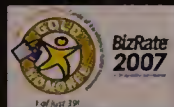
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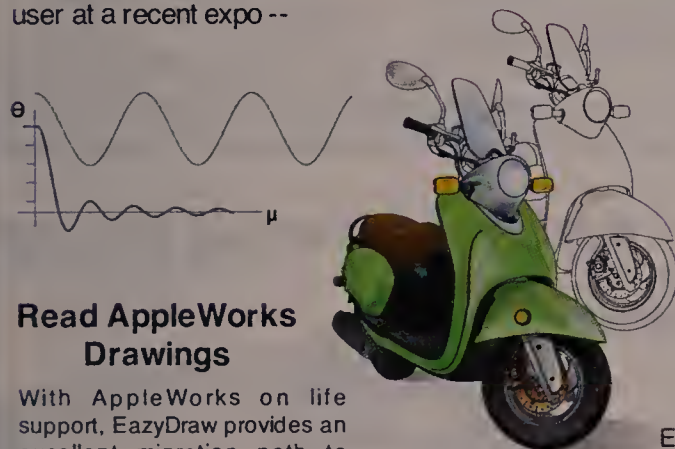
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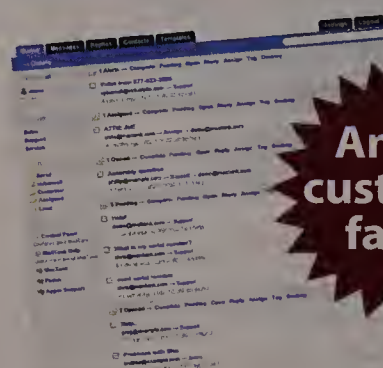
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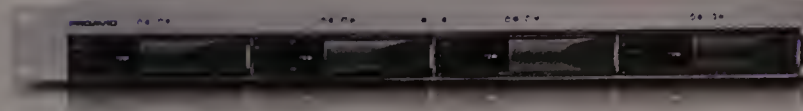

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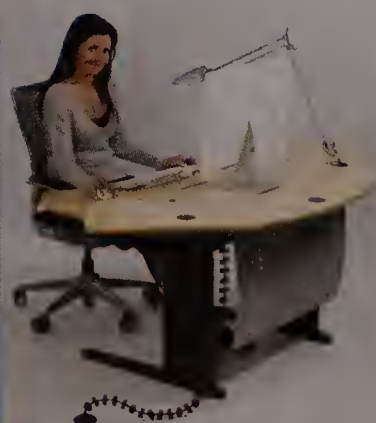


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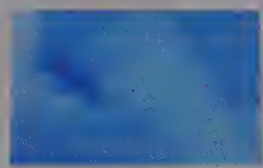
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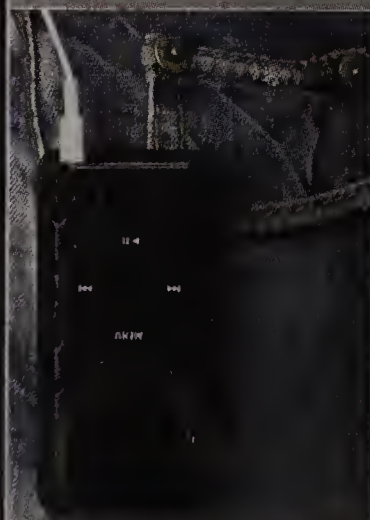
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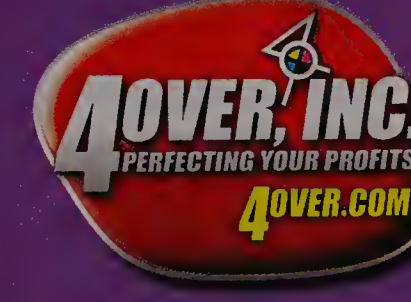
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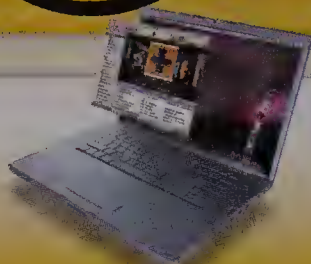
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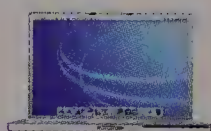
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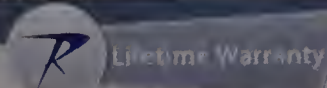
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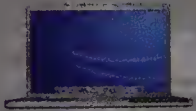
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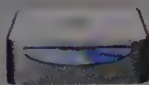
1Gig - \$119
2Gig - \$149
4Gig - \$299

MacBook Pro



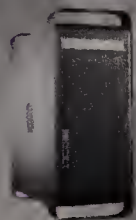
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Mac mini Intel

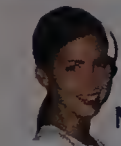


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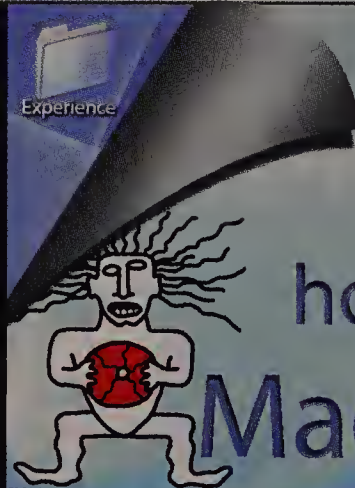
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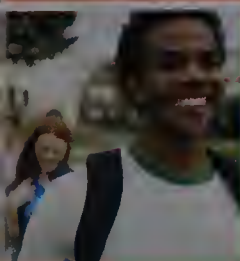


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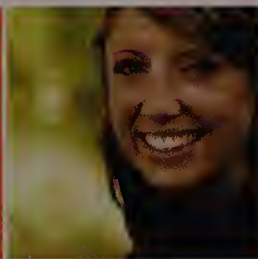
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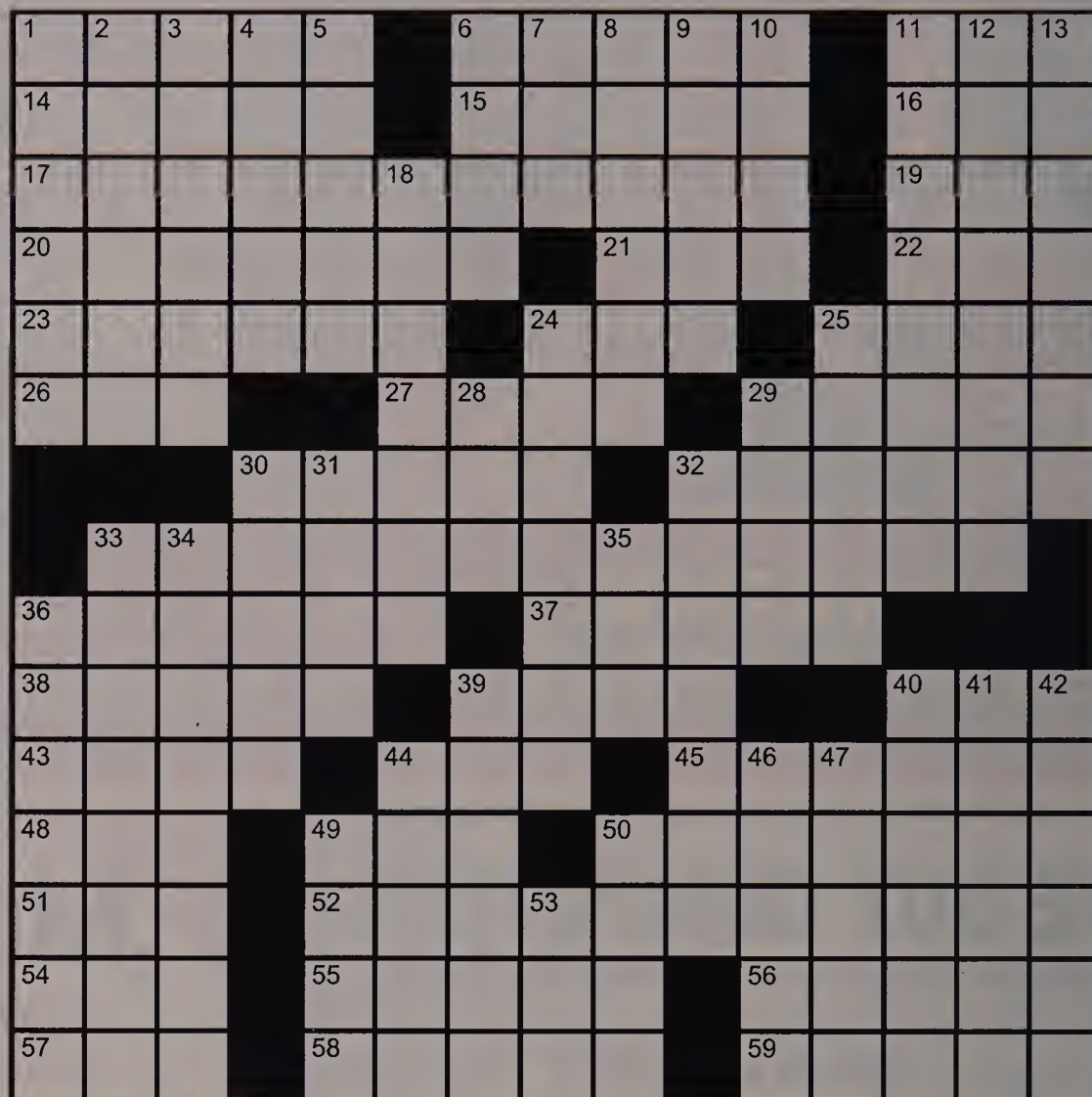
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User Input

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ACROSS

- 1 Type of lily
- 6 Temple teacher
- 11 Pre-AGP graphics interface
- 14 Was feeling under the weather
- 15 Epps and Sharif
- 16 Ball or bass follower
- 17 Take along for the ride?
- 19 PC equivalent of AIFF
- 20 Shark clingers
- 21 Some dash lengths
- 22 Summer on the Seine
- 23 Photoshop's is magic
- 24 Puma, Jaguar, Panther, Tiger, or Leopard
- 25 "It's cold in here!"
- 26 Draft organization
- 27 Evidence of a software installation (abbr.)
- 29 Partners of papas
- 30 Old drive interface
- 32 ____-Lorraine (French region)
- 33 Aim and then fire?
- 36 Go after
- 37 7-down rival
- 38 Lopsided
- 39 Result of getting sacked
- 40 "____ we there yet?"
- 43 Web site part
- 44 Computer linkup, for short
- 45 U.S. Supreme Court Justice Antonin ____
- 48 Faulkner's ____ *Lay Dying*
- 49 Not IMAP
- 50 Program that puts utility software on the iPod
- 51 Yang's counterpart
- 52 Move it but don't lose it?
- 54 Dentists' organization
- 55 Flora and fauna
- 56 "Hey, Moe, gimme ____" (Homer's request)
- 57 Mercedes-Benz model
- 58 Sevens at the Sorbonne
- 59 *Triumph of the ____*



DOWN

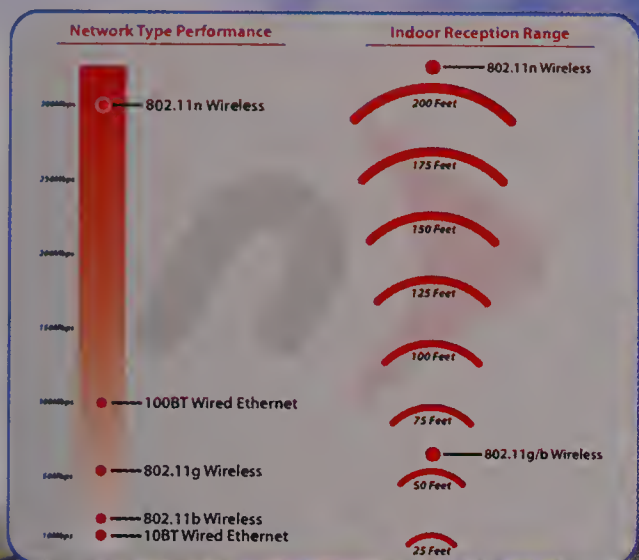
- 1 Core groups (not groups of cores)
- 2 Frames for drying clothes
- 3 Andes animals
- 4 Plastic building blocks
- 5 "Not on ____!" ("Fat chance!")
- 6 Fishing poles
- 7 Not the Mac CPU supplier
- 8 Least furnished
- 9 New York City borough, preceded by *the*
- 10 AOL and MSN, for example
- 11 Long-running Apple desktop-computer line
- 12 Place to hang a parka
- 13 Opposite
- 18 Tell the story
- 24 Point of view
- 25 Mr. Fawlty
- 28 IRS employee, perhaps
- 29 Marseilles Ms.
- 30 Airline seat option
- 31 Letter-shaped fastener
- 32 Weeps and moans
- 33 Table for later
- 34 Pre-edited version
- 35 IP address translator
- 36 Tropical fruits
- 39 MacBook or PowerBook
- 40 The Beatles' "I'm ____"
- 41 Ran amok
- 42 Like the Sprats
- 44 Kingsmen song subject
- 46 News channel that covers D.C.
- 47 "Like ____ in the woods"
- 49 Banned pollutants
- 50 Double-helix molecules
- 53 iPhone partner ☒

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Jonathan Seff is a senior editor at *Macworld* and a cruciverbalist in his spare time.

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